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ANTENATAL CLINICS AND PREMATERNITY PRACTICE AT THE EDINBURGH ROYAL MATERNITY HOSPITAL IN THE YEARS 1909-1915.

By J. W. BALLANTYNE, M.D., F.R.C.P.E.,

PHYSICIAN, EDINBURGH ROYAL MATERNITY HOSPITAL; LECTURER ON MIDWIFERY AND GYNAECOLOGY, SCHOOL OF MEDICINE OF THE ROYAL COLLEGES, EDINBURGH, ETC.

In November, 1901, prematernity work was definitely commenced in the Edinburgh Royal Maternity Hospital with the opening of the Hamilton Bed—a bed set apart and endowed for the purpose of the treatment of the diseases peculiar to, or accidental during, pregnancy. A few years later, with the consent of the directors of the hospital, the bed became a ward, and was known as the "prematernity ward"; and I have from time to time reported on the work done therein, sometimes in the form of descriptions of special cases, and at other times in that of lists of maladies dealt with. My last report, which summarized the cases treated in the autumn quarter of 1908, appeared in the February and March parts of the *Journal of Obstetrics and Gynaecology of the British Empire* for 1909.[1] Since 1908 I have continued to be in charge of the hospital during the autumn quarter of each year, and I now bring forward notes on the cases dealt with during these seven recurring periods in the prematernity ward.

Before, however, the records of these experiences are set forth it may be useful and interesting to outline the extensions of the prematernity and antenatal work of the hospital during the past few years. No sooner had the prematernity ward been opened than it became evident that patients entering it were being supplied from at least three different sources—medical men in and around Edinburgh, knowing of its existence, began to send in suitable cases, and in this manner the majority of the women arrived for treatment; a few patients apparently came on their own initiative; and others were recommended to come in by the nurses of the hospital who happened, in the discharge of their duties in the outdoor department, to meet with expectant mothers suffering in one way or another from the maladies of gestation. The result was that almost automatically the prematernity work began to develop along these three lines; and, as a consequence, I have never had any lack of cases during the autumn quarter in the last seven years, and in the last three or four years the supply of patients has been such as to force me to accommodate some of the incomers in another small ward of four beds known as the "first stage ward." A few have had to be temporarily placed in the large general wards of the institution.

The extension of the supply of patients through the dissemination of information regarding the existence of the prematernity department has been gradual and continuous. The publication from time to time in the medical journals of the result of cases treated in the hospital has no doubt tended to make the work familiar to a large circle of medical men, and the district served by the hospital has thus been widened, so that in 1914 several patients from long distances were inmates of the ward for longer or shorter periods. As other maternity hospitals establish the same kind of work this source of supply may cease to expand so rapidly.

Antenatal Work in the Extern Department.

Another direction of development has been through the extern department of the hospital and the nurses working in it. At first antenatal work in this sphere was irregular, haphazard, and on a small scale; individual pregnant women occasionally came to the hospital to put down their names to secure attendance at their confinement, and at the same time asked advice in connexion with troubles from which they were suffering, with the result that now and again one would enter the prematernity ward; and nurses, on their rounds in the extern department, sometimes heard of women whose pregnancies were not proceeding normally, and got into touch with them, either giving them advice in minor matters or bringing them into hospital in more serious cases. During the autumn quarter of 1913[2] this sort of work was systematized and considerably extended. I then made arrangements whereby a trained nurse with special knowledge of pregnancy troubles was made available for work in the "district" (as the extern department is called), and she visited expectant mothers, giving advice as to the preparations for confinement, making inquiries respecting health, and in particular taking notice of any of the danger signals of the pregnant state, such as headache, oedema of face and hands, excessive vomiting, rickety deformities, and the like. She reported to the matron and the medical staff in the hospital. In cases of grave trouble the patient was brought into the prematernity ward, and in less serious cases she was visited by one of the resident medical officers, and watched over by the pregnancy or prematernity nurse in her own home. Most of the patients with whom the hospital thus got into early touch were married women, the unmarried girls reaching the institution through another channel, to which reference will be immediately made.

In order to aid the prematernity nurses in their work among the expectant mothers of the extern department I constructed and had printed a Prematernity Card, setting forth the most important questions to be inquired into and reported upon. These cards were put into use in September, 1913, and were soon found to be of great value. Each card (*vide infra*) had spaces for answers to questions regarding, first, certain general

PREMATERNITY CARD
(*Edinburgh Royal Maternity Hospital*).

1. Name .....
2. Age..... 3. Address.....
4. No. of Pregnancy .....
5. Details of past pregnancies, labours, nursings, etc.

6. Expected Date of Confinement .....
7. Details of present pregnancy, especially as to danger signals:
   (*a*) Excessive vomiting.....
   (*b*) Persistent headache .....
   (*c*) Small quantity of urine.....
   (*d*) Discharge, red or white.....
   (*e*) Excessive constipation .....
   (*f*) Impaired vision .....
   (*g*) Any other unusual sign, for example, swelling of hands and face.

8. Advice given as to
   (*a*) Food. (*b*) Clothing. (*c*) Exercise and rest. (*d*) Straining or reaching. (*e*) Medicines. (*f*) Care of breasts and teeth. (*g*) Medical advice. (*h*) Preparations for Confinement and baby clothes. (*i*) Healthy living rooms.

matters such as name, age, and address of patient; second, the number of the pregnancy, the details of past pregnancies, and the expected date of confinement (that is, the age of the gestation); third, the details of the present pregnancy, especially in respect of such danger signals as excessive vomiting, persistent headache, diminished flow of urine, red discharge, excessive constipation, impaired vision, and the like; and fourth, regarding the advice given by the prematernity nurse as to food, clothing, exercise, rest, straining, medicines, care of breasts and teeth, medical advice (at the hospital), preparations for confinement (in the home), and the like. After filling in the answers to the preliminary questions the visiting nurse was instructed simply to place a cross opposite any one or more than one of the danger signals, and similarly to put a mark opposite the advice she had given. For instance, a card might be returned with a cross opposite "impaired vision," and another alongside of "medical advice"; as the result of the reception of this card one of the medical officers would visit the woman, would probably find that she was suffering from albuminuria and retinitis, and would be able to take such measures as might save her from eclampsia. The patient might have noticed her failing eyesight, but might not have thought of telling the nurse about it had not the question been directly put to her. As a matter of fact such a case occurred in the extern department of the hospital simply as a result of the prematernity nurse asking questions, and this case had not a little to do with my determination to provide the card of inquiry.

As has been stated, married women were the patients most effectively reached by the prematernity nurses. They heard of them when visiting other patients, and.

after finding out that they were not already being looked after by doctor or midwife, they offered their advice, often with the result that timeous arrangements were made for confinement, baby clothes were looked after, and many other preliminaries carried out which would otherwise have been postponed or never done at all. Reference has been made to the way in which the unmarried girls were reached. In this respect the hospital was very fortunate in having situated opposite to it the Lauriston Place Home for Maternity Rescue Work. In this institution[3] young girls illegitimately pregnant for the first time are cared for, and in many cases saved from the further disasters which so often follow upon such lapses from virtue; but, further, these girls are kept under medical supervision, a medical man regularly visiting the home, and watching for early signs of the maladies of pregnancy. In this way deviations from the normal have been on many occasions promptly recognized; in some instances the requisite treatment has been applied in the home with immediately beneficial results, whilst in others the girl has been transferred to the prematernity ward of the adjacent Royal Maternity Hospital for the more specialized management which the morbid condition called for. It is an undoubted fact that by this means many primiparous patients have in recent years been protected from the development of eclampsia, and have been carried safely through their confinements, who would otherwise have suffered severely and might well have lost their lives. There can be no hesitation in saying the Prematernity Rescue Home and the prematernity ward in the Royal Maternity Hospital have worked most usefully into each other's hands, and have by their conjoined efforts saved many lives and lessened much suffering.

Antenatal Work in the Hospital.

During the summer of 1915 a further advance was made in the organization of the prematernity and antenatal work carried on in the Royal Maternity Hospital. This consisted in the establishment of a weekly antenatal clinic, under the care of the physician or the assistant physician of the hospital for the time being. Two rooms were set apart and fitted up for the purpose, and in them regular antenatal clinics were commenced in June, 1915, under the care of Dr. Haig Ferguson, whose quarter it was. When I came on duty on July 1st the work which had been so auspiciously begun was continued, and Dr. Oliphant Nicholson, the assistant physician, saw many an interesting case of disease in pregnancy during the following three months. Some cases were immediately taken into the prematernity ward, others were treated at the clinic, and yet others at their own homes in the extern department, and others again were simply asked to report themselves at intervals for supervision. Another weekly clinic was instituted at the same time for infants recently born in connexion with either the indoor or the outdoor work of the hospital, and so post-natal is added to antenatal care of the babies. The directors of the hospital present to each of the expectant mothers visiting the clinic a copy of my little booklet (*Hints to the Expectant Mother on Her Health*), published in 1915 by the Women's Co-operative Guild of London. This has also been freely used in the extern department of the hospital, and has to some extent taken the place of the prematernity cards above referred to. Through the antenatal clinic there can be no doubt that the hospital comes into more immediate and earlier touch with just the patients who may be most benefited by prematernity care and treatment. It has, so to say, completed the prematernity system of the hospital.

During the autumn quarter of 1915 a number of interesting cases were dealt with in the antenatal clinic. There were two or three patients suffering from albuminuria; a heart case which was taken into the prematernity ward; an instance of excessive vomiting which was treated; a woman troubled with haemorrhoids, who was relieved; one with a contracted pelvis, who was told to come into hospital for induction of labour in a month; one who had had repeated miscarriages and whose past history in respect of syphilis was investigated; one who had given birth to dead infants, who was kept under observation; one who had had spurious pains and was assured of the fact; one who had had "fainting turns" from an undiscoverable cause, who was to be visited; one who was distressed by cystitis, and was given medicine; one who had chronic constipation, which was overcome, and one whose pregnancy was doubtful. There were also cases of normal pregnancy, in which the mothers simply came for advice about their arrangements. There can be no doubt regarding the real value of these antenatal clinics, for through them the physician on duty gets to know of the health of pregnant women who will later become his patients in either the intern or extern departments of the hospital; his diagnosis and prognosis, and to some extent his treatment of the resulting confinements, are rendered more exact and much more effective, and the patients' chances of normal labours rendered better than they would otherwise be. Further, when more normal non-war times come, the teaching value of the clinic for undergraduates and post-graduates will be demonstrated more fully. Certainly opportunities for the careful diagnosis of normal, and especially of abnormal, pregnancies are thus greatly extended.

The Prematernity System.

The prematernity system of the hospital as it now exists may be described as follows: The prematernity ward is the centre of the whole work, for without it all the rest would be ineffective. The other means would not indeed be useless but they would be indecisive, and patients would be left in many cases incompletely dealt with. Consequently the other parts of the system are largely of the nature of sources of supply for the prematernity ward. They consist in the first place of the prematernity or prenatal nurses (to use the name given to them in Boston where they work under the Women's Municipal League), who come into touch with expectant mothers in the outdoor department of the hospital, and who, if necessary, recommend these "expectants" either to the antenatal clinic or to the prematernity ward. In the second place, there is the prematernity home for unmarried girls, where such young pregnant women are kept under medical supervision, and can be sent either into the general wards when they pass into labour, or into the prematernity ward if they develop serious complications of gestation; in the third place, of the antenatal clinic, whose range of usefulness has already been indicated, and need not be restated; and, in the fourth place, of the medical practitioners in the neighbourhood, who, with steadily increasing frequency, are sending suitable patients of the working class into hospital for prematernity treatment. The prematernity department of the hospital, naturally, is connected with the maternity portion, where the women are delivered of their infants and pass the days of the puerperium, and that again is reinforced by the baby clinics, to which the mothers are enjoined to bring their infants for supervision, weighing, and advice, and by the postnatal home for the unmarried mother and her first child.[4] At the same time these agencies are not necessarily all brought into action in any case. It is not essential, for instance, that a woman treated in the prematernity ward wait in the hospital for her confinement; she may be relieved of her trouble while in the pregnancy ward, and thereafter return to her own home for her confinement; and this is a not infrequent occurrence in the case of maladies early in pregnancy, such as threatened abortions and troublesome vomiting.

Prematernity Ward Work, 1909–1915.

In the remaining part of this contribution I shall not try to give a complete account of the work done in the prematernity ward in the Edinburgh Royal Maternity Hospital during the autumn quarters of the seven years from 1909 to 1915, for that would constitute a very lengthy statement; but I shall give the numbers of the patients attending in these quarters, indicate the maladies from which they suffered, and a few notes in connexion with specially interesting cases.

Autumn Quarter, 1909.

In the autumn quarter of 1909 thirty-two patients passed through the prematernity ward. The following were the causes by reason of which these women were treated in the ward for morbid pregnancies: Of albuminurias there were five, and of eclampsias three, and to these eight cases special reference is made below. Three were received on account of varicose veins, three by reason of false pains, three for the induction of labour on account of

small size of the pelvis, three for heart disease, and three for convenience (homelessness, poverty). Two patients were admitted for threatened abortion, in both of whom the pregnancy continued. One patient was taken into the ward on account of symptoms arising from over-distension of the abdomen, which turned out to be due to twins; one for syphilis complicating pregnancy; one for a cervical cyst which it was feared might interfere with labour, but did not; one for inevitable abortion; one for phlebitis; one for croupous pneumonia; and one for an ovarian tumour, which was removed a few days later in the Royal Infirmary, where she was sent.

Whilst the maladies named were the outstanding ones from which the patients suffered, they were not the sole ones. For instance, one of the women, whose most evident trouble arose from varicose veins, had in a previous pregnancy been attacked by eclampsia; another, who is numbered with the albuminurias, came in for false pains; and the existence of a cervical cyst was quite accidentally discovered in another, who came to the hospital from the poorhouse.

Of the thirty-two mothers one only died. This was the patient sent in suffering from croupous pneumonia. She arrived in an ambulance from a town some miles out of Edinburgh, and was practically moribund on her arrival. She was put on oxygen inhalation soon after her admission, and was vigorously treated by stimulants and other appropriate means, but all the measures taken were ineffective, and she died undelivered. She was not at term. Of the remaining thirty-one mothers, six left the hospital undelivered but relieved of the maladies for which they were admitted; the six included the cases of threatened abortion, of varicose veins, and of false pains. Another undelivered woman (the one suffering from an ovarian tumour) went to the Royal Infirmary for ovariotomy. Twenty-four patients remained in or returned to the hospital for confinements, and they all left the institution in good or fairly good health after their deliveries. One death in thirty-two was a result which could be considered satisfactory when it was borne in mind that there were three eclampsias, five albuminurias, three heart cases (one of which was a very serious one), and a croupous pneumonia. The heart case just referred to was so grave that labour had to be induced; she lived for two years afterwards. The results so far as the infants were concerned were not so good; they numbered twenty-six, for in one case there were twins. Of the twenty-six, sixteen were alive when their mothers left the hospital, and to these might be fairly added the seven fetuses still unborn in the seven patients who left the institution undelivered; but the remaining ten died, eight of them antenatally, one during birth (from craniotomy), and one (a prematurely born child from a case of induction) some days later in the post-natal period. Of the eight antenatal deaths one was an abortion, one was due to syphilis, two were the result of eclampsia in the mothers, one fetus perished *in utero* (in the case of the maternal death), one death was due to maternal albuminuria, one to maternal heart disease (probably placental haemorrhage), and one from an unknown cause (prematurity?).

Nearly all these prematernity cases contained elements of interest in their records; but space can only be given for a brief reference to the three cases of eclampsia.

The first of them, a primipara, aged 25 years, was a few days short of the full term, and was sent into hospital after having had seven fits. On admission her blood pressure was 160, her pulse 91, and her temperature 99. Venesection was performed, the stomach was washed out with sodium bicarbonate solution, 10 oz. of Henry's solution were inserted into the stomach, a large enema was given, and normal saline was transfused subcutaneously. Improvement followed, and three days later she went into labour and was safely delivered of a living child. She had no fits after admission to the ward, and both she and her baby left the hospital well.

The second eclampsia patient was also primiparous, her age was 27, and her pregnancy was in the eighth month. She was sent into the hospital after having had five fits, and she had one after admission. The treatment consisted of stomach washing, the administration of 10 oz. of Henry's solution by stomach tube, a large enema, and the hot pack. She soon began to improve, and five days later she went into labour and was delivered of a dead-born male child, whose weight was only 4 lb. 2 oz. The mother made a good recovery. The third patient had a somewhat unusual experience, and it was a consideration of her case which led me to extend the treatment I was in the habit of giving in eclampsia to albuminuric patients who had not yet developed fits. She was only 17 years of age; it was her first pregnancy, and she had reached the seventh month; she was sent into the prematernity ward on account of generalized oedema, diminished secretion of urine, and marked albuminuria. She had had no fits. I contented myself with ordering purgatives, diuretics, the hot pack, and an enema, and for five days there was steady improvement; then her blood pressure rose to 170, the fetal movements ceased, and the patient had a fit. On the following day she had two fits, and then venesection, intravenous transfusion (normal saline), stomach washing, and the running in of Henry's solution was performed. Improvement in certain of the symptoms followed, but she continued in a dangerous state for two days, at the end of which labour set in, and she was delivered of a dead male fetus, weighing 2½ lb. She made a slow but in the end a good recovery.

This last case was in one sense a disappointment, for I had hoped—and, indeed, had affirmed in teaching students and post-graduates—that if an albuminuric patient came into the prematernity ward and received treatment there for at least two days eclampsia could be staved off. In this instance eclampsia was not prevented. The lesson I learnt was to give to grave cases of albuminuria the same treatment, or part of it, as I was giving to actual eclampsias. In future I treated the serious cases of pre-eclampsia just as if they had already had fits, sometimes doing a venesection, sometimes adding to that a gastric lavage with sodium bicarbonate solution, and sometimes transfusing as well. The change in management was simply a carrying of the principles of preventive treatment a little further back in the history of the case. In other words, I did not wait for the fits to develop before giving the treatment I thought necessary for them.

Autumn Quarter, 1910.

In the autumn quarter of 1910 twenty-nine patients passed through the prematernity ward. The conditions leading to their admission to the ward were as follow: Four were admitted for convenience (poverty, homelessness), three on account of albuminuria, three for the induction of labour on account of contraction of the pelvis, and one to wait for a Caesarean section for the same reason, two for spurious labour pains, two for heart disease, and one each for jaundice, retroversion of the gravid uterus, eclampsia, pyelonephritis, hyperemesis, oedema of limbs, haemorrhage at eighth month, haemorrhage at seventh month, syphilis and perhaps myxoedema, supposed appendicitis, threatened abortion, and diarrhoea and vomiting. There were two other interesting causes for admission. One was the occurrence of fetal death in previous pregnancies, and the other was the supervention of convulsions (soon after birth) in the infants born at previous labours.

All the mothers did well. Seventeen of them remained in the hospital for their deliveries, whilst twelve, for various reasons, left undelivered, but, as a rule, relieved of the trouble for which they were admitted, or remained for further treatment during the ensuing quarter. Of the seventeen mothers who went on to labour, fourteen gave birth to living children who left the hospital alive, whilst one (an albuminuric patient) expelled a dead fetus, one (a hyperemesis case) had abortion induced, and another (a woman with a contracted pelvis, especially narrow at the outlet) lost her child in labour. The last named case caused me more regret than any other during the quarter.

The woman had had four previous full term labours. With the help of forceps her doctor had delivered her of her first child, who, although in a state of asphyxia at the time of birth, had survived; but in the three following labours, which were all instrumental, the child was lost in each case. She had been warned to return to the hospital for induction on the occasion of her last labour, but she did not come in till she was in the eighth month. The interspinous diameter measured about 9 in. and the intercristal about 10 in., whilst the true conjugate was calculated to be a little over 3 in.; the outlet felt markedly narrow. It was regarded as a justo minor type of deformed pelvis. Labour was induced, but both forceps and version having failed the child had to be craniotomized.

Two causes must be assigned for the untoward result. The first was a miscalculation of the possibility of the child passing through the pelvis, owing in part to the late date of induction, in part to the large size of the fetus, and in part to the unrealized narrowness of the outlet; and the second was the fact that in her first labour a living child was extracted with the help of forceps.

During this quarter a good deal of post-graduate

teaching was carried on in the hospital,* and I gave several clinics in the prematernity ward; one of these lectures was reported in the *International Clinics*.[5] In it I gave an account of three interesting cases.

One was an instance of recurrent fetal death in a patient who in each of her three previous pregnancies was delivered of a child which had evidently perished *in utero* about a fortnight before its expulsion. She was pregnant for the fourth time, and besides watching the fetal heart carefully I ordered her to have calcium chloride and a mixture containing iron, arsenic, and strychnine. She went a little beyond the full term, and so I induced labour, and had the satisfaction of delivering her of a living child.

Another woman was successfully treated for retroversion of the gravid uterus causing difficulty in micturition; the uterus was replaced under an anaesthetic, and a pessary was introduced to keep it in position.

The third patient suffered from renal calculi and pyonephrosis in pregnancy; she was operated on in the Royal Infirmary, the kidney being opened and the stones removed (nephrolithotomy); she then returned to the prematernity ward, where she remained till her labour, which took place normally; both mother and infant left the hospital in good health.

Amongst the cases treated at this time there was a curious one in which a patient was sent into the ward from the country by a doctor who reported that in each of her previous pregnancies (five in number) she had given birth to a living child which in every instance died from fits some weeks later. In one instance a *post-mortem* examination was made, which did not, however, reveal any cause for the fits. Her medical man (Dr. Andrew, of Windygates, in Fife) thought that perhaps some antenatal treatment might be administered through the mother which would prevent the next infant dying in the same way as the former ones. A very close examination of every one of the woman's systems was made, without, however, leading to the discovery of any anomaly in the working of any one of them. Thinking that perhaps the fetus might have suffered in previous pregnancies from deficiency of calcium salts or of phosphorus, I put the mother on hypophosphite of calcium and sodium, and after a stay in the ward of about a week she returned to her home to be under Dr. Andrew's care. I heard later from Dr. Andrew that once again she had given birth to a living and apparently healthy child who had developed fits at the end of a week. Treatment before birth, therefore, was of no avail in this case, but I have recorded it as of interest and as illustrating the sort of case which the prematernity ward attracts to the hospital and the new vistas of possible kinds of treatment it suggests.

Autumn Quarter, 1911.

In 1911 my quarter on duty in the maternity hospital was reduced by two weeks, in order to facilitate a readjustment of the terms of service of the medical staff; consequently, the number of patients who passed through the prematernity ward was reduced to 26. These patients came in for various causes. Three were admitted because they were supposed to be aborting, and two of them did abort, whilst the other was curetted when it was discovered that she had already expelled most of the gestation sac. Another patient was sent because of repeated premature labours with dead children; she did well. There were 5 cases of albuminuria; all these did well under appropriate treatment, with the result that the five mothers left the hospital in good health along with six children, for one of the labours ended in the birth of twins (with hydramnios). In one of these albuminuric patients there had been chorea in the early months of pregnancy (for which she had been treated in the prematernity ward); in the twin case the united weight of the infants was 10 lb. 5 oz., and in the remaining 3 cases the child weighed 8 lb. 6 oz., 8 lb. 13 oz., and 7 lb. 15 oz. respectively. It was therefore probable that in 4 of the cases the cause of the albuminuria was mechanical pressure or renal strain.

There were 3 cases of hyperemesis, and in all of them it was found necessary to induce abortion. Consequently all the fetal lives were lost, and there were four of them, for in one of the pregnancies there were twins. This was an unfortunate result; but in addition I had to deplore the death of one of the mothers. The fatal case was one of a woman, aged 40, pregnant for the fifth time (at the fourth month). Her pulse was 110 when she was admitted, and it never fell below 100 either after or before the induction, and death occurred seven days *post abortum*. Another patient was sent in for gastric disturbance near the close of pregnancy; but she had a normal labour and a living child. There was some (unconfirmed) suspicion of gastric ulcer. Two women came in on account of troublesome constipation; both were relieved by appropriate treatment; one went out undelivered, as she was not near term, and the other remained in hospital for her confinement, which was normal. Two patients came in for spurious pains; in one case they settled down and she went out, her pregnancy continuing; in the other she went out, returned exactly fourteen days later, and had her baby normally.

Two patients were in the prematernity ward by reason of contracted pelvis. One of these women went into labour spontaneously and prematurely, while waiting in the ward, and had a living child who survived; the other, who had had Caesarean section on a previous occasion and had developed a large umbilical hernia, was kept in till full term, when I performed a second Caesarean section along with an operation for the closure of the hernia; both were successful. Of the remaining seven cases, one was admitted after a fall in pregnancy and an attack of haematemesis, but since no evil results followed she went home in eight days; one came in for bronchitis and varicose veins, and after a stay of a week was delivered naturally, with immediate improvement in the two morbid states; one was sent in for oedema of the legs, and after twelve days gave birth to a child weighing 9 lb. 6 oz., a circumstance which probably accounted for the oedema; one was given a bed for nearly a fortnight on account of threatened accidental haemorrhage, but since the red discharge did not return she went home for her confinement, which was not due for some weeks; one was sent up to the hospital on account of mental symptoms, and whilst in the hospital she tried to drink a bottle of lysol, but she became normal after her confinement, which, however, was three weeks post-mature; and another was admitted on account of phlebitis of the left leg which threatened to develop into phlegmasia alba dolens of pregnancy, but which, with rest in bed and other appropriate treatment subsided and was followed by a normal labour and puerperium. The last-named patient also suffered from an abscess in the leg which Mr. Wade (from the Royal Infirmary) opened after her confinement. The seventh of these cases was an interesting example of haematuria during pregnancy.

The woman was a III-gravida at the eighth month; for more than two months blood had been coming in the urine, and she had received treatment from her doctor, but lately the haemorrhage had been alarming, and it was so during the first five days after her admission to the hospital. As the cause was obscure, I asked Professor Caird (the consulting surgeon of the hospital) to see her with me. The result of a cystoscopic examination was the discovery of an ulcer at the fundus of the bladder, covered with a blood clot. Since she gave a positive von Pirquet reaction it was regarded as probable that the ulcer was tuberculous in nature. But whatever may have been the explanation the blood gradually diminished in amount, was quite gone eleven days later, and the patient had a normal labour and puerperium and a healthy male child weighing at birth 8 lb. 4 oz.

The results of the prematernity ward work for the autumn quarter of 1911 may be summed up as follows: Twenty-six mothers were under treatment; of these, 5 left the hospital undelivered but relieved of the trouble for which they entered; 1 died (the case of severe hyperemesis gravidarum); and the remaining 20 passed through labour and left the hospital well. In all there were 28 babies or fetuses, for in two of the confinements twins were born; of 5 of these nothing can be said, for the mothers went out before delivery; 7 fetuses (including one pair of twins) perished, but they were all non-viable; and the remaining 16 (including the second pair of twins) were all alive and well when taken from the hospital by their mothers.

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(To be continued.)

* This was continued and developed in all the succeeding years save in 1915.

ON THE IMMEDIATE TREATMENT OF SEVERE POST-PARTUM HAEMORRHAGE.

BY

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THE term "*post-partum* haemorrhage" is one which, in its accepted clinical significance, is incapable of exact definition. Its meaning is conventional, and may be described with fair accuracy as an abnormally severe haemorrhage from the parturient canal occurring within twenty-four hours after the birth of the child.

The source assigned indicates the idea of the purely obstetric nature of the haemorrhage. The time limit has been arbitrarily fixed for convenience. The measure of quantity is unavoidably vague. Practically, it is the opinion of the medical attendant in the particular case that the haemorrhage is sufficiently severe to call for measures for its arrest, and to merit the term "*post-partum* haemorrhage."

Cases of *post-partum* haemorrhage are usually classified in three groups according to their causes, which in turn indicate the appropriate lines of treatment:

1. Laceration of the parturient canal.
2. Retention of the placenta (partial or complete) within the uterus.
3. Inadequate shrinkage of the uterus.

Obviously any two or all three of these conditions may coexist. In all of these cases, as indeed in all cases of haemorrhage in whatever situation, treatment has three successive objects, namely:

1. The immediate arrest of the haemorrhage.
2. The immediately succeeding maintenance of this arrest.
3. The permanent closure of the bleeding vessels.

The general principles of treatment are the same for all cases. The particular means employed for the first and second objects may properly depend to some extent on the severity of the haemorrhage in the particular case, and the same means can promote both objects. The third object is attained by purely natural means, namely, the formation and growth of new tissue.

Post-partum Haemorrhage due to Laceration of the Parturient Canal.

Its nature is proved by seeing or feeling the laceration or lacerations. Failing this, it may be confidently inferred from the presence of its characteristic feature, namely, persistence of the haemorrhage, despite firm uterine contraction, more especially after complete expulsion of the placenta. Treatment consists in suturing or plugging the lacerations.

Post-partum Haemorrhage from Retention in the Uterus of the Placenta.

When due to retention of the placenta in whole or in part, the haemorrhage takes place from the open blood channels in the uterine wall and in the placenta (when the latter is only partially separated). The haemorrhage here implies placental separation in some degree, for while the placenta is yet entirely attached to the uterine wall (that is, while as yet no separation whatever has occurred) the blood channels are intact, and therefore no haemorrhage can occur. Under normal conditions the same forces—contraction and retraction of the uterus—simultaneously cause separation of the placenta and closure (by compression) of the opened blood channels in the uterine wall. This sealing effect is maintained until clotting and organization perpetuate it.

With the commencement of placental separation the possibility of *post-partum* haemorrhage begins, and if at any time thereafter and before permanent haemostasis is secured shrinkage of the uterus fail and flaccidity occur, then the temporary sealing of the torn blood channels is liable to become undone and consequent haemorrhage to set in. Obviously, then, the later in the process of placental separation flaccidity of the uterus occurs the larger is the number of blood channels thus opened, and *pro tanto* the severer is the haemorrhage likely to be. Indeed, the most serious and immediately dangerous cases of *post-partum* haemorrhage are to be found amongst those in which haemorrhage begins after the placenta has been delivered.

The two ready means of resolving doubt as to whether any placental tissue has been retained are inspection of the placenta delivered and palpation of the uterine interior.

In *post-partum* haemorrhage from retained placenta the essentials of treatment are two: (1) to empty the uterus—that is, to remove whatever part of the placenta is still within its cavity, and (2) to promote uterine contraction. Should haemorrhage continue despite complete removal of the placenta the case automatically passes into the next class, and is to be treated accordingly.

Post-partum Haemorrhage from Uterine Flaccidity after Expulsion of the Placenta.

Severe degrees of this form the more immediate subject of this paper. Different terms (for example, atony) have been used to denote the condition of the uterine wall. It matters comparatively little what terms are used provided that one has a clear mental picture of the essential feature, namely, an absence (more or less complete) of the normal shrinkage of the uterus, which shrinkage is due to contraction and retraction of the muscle fibres in the uterine walls.

Where *post-partum* haemorrhage of this kind is a continuance of a haemorrhage preceding expulsion of the placenta the medical attendant is in a favourable position to check it, because, engaged in the delivery of the placenta, he is bound to be aware of its existence at the earliest stage.

Matters are very different where haemorrhage begins after expulsion of the placenta. Here one meets with the gravest cases of *post-partum* haemorrhage. Probably no haemorrhage of equal severity occurs in circumstances so little likely to attract the immediate notice of either the medical attendant or the patient. Here is no dramatic violence compelling attention as in the case of surface wounds. There is here no pain to enforce complaint, such as accompanies the blanching haemorrhage of ruptured tubal pregnancy. Unlike a haematemesis, this haemorrhage, occurring under bedclothes, is unseen. The patient, exhausted by her confinement, is at first aware only of an increase in the flow of warm discharge, which she has no reason to suppose is not quite usual and natural. She soon feels faint but not surprised, and almost immediately is beyond power of speech. Such are the cases in which the medical attendant, having delivered the placenta, felt the uterus to be contracted, and finished his bedside duties, inspects the child, washes his hands, and, returning to his patient's side, is staggered to find her blanched, breathing almost imperceptibly, scarcely conscious, dying.

It is when faced with such a situation as this that one appreciates the immense advantage of having at instant command a simple, direct, efficacious, and easily applied line of treatment which has been thought out by oneself beforehand. It may be said that this is so self-evident and is so universally realized as to call for no remark. Experience in cases seen in consultation has proved the contrary. Conversation with different medical men has confirmed this conclusion. A reference to various text-books in the English language suggests that their authors have succeeded in describing an encyclopaedic list of the different means that have at any time been used to check *post-partum* haemorrhage rather than in giving a clear lead in the selection and precise application of the best.

This paper has been written in order to emphasize the importance of a pre-determined line of treatment, to describe and discuss a method used by the writer for a number of years with good results, and to urge the great value of a particular measure in that treatment—namely, immediate elevation of the bleeding surface.

The morbid condition is a mixed haemorrhage, of which the immediate cause is uterine flaccidity, and the predisposing causes are any and all conditions that make for uterine flaccidity. That the haemorrhage is in part arterial is indicated by the immediate effect of compression of the abdominal aorta. That it is in part venous is indicated by its colour. The arterial haemorrhage is by onward flow from the curling arteries. The venous

haemorrhage is by regurgitation through the uterine veins, facilitated by the absence of valves from them and from the veins that they feed.

Uterine flaccidity connotes corresponding inadequacy in the mechanical closure by muscular compression of the blood channels traversing the uterine wall at the placental site. It is almost certainly not the only causal factor in every case, but in every case it is to be regarded as the dominant one, and the only one to which attention need be primarily given. Where adequate retraction and contraction exist no *post-partum* haemorrhage occurs.

The conditions predisposing to uterine flaccidity fall into two main groups which obviously are not mutually exclusive, namely:

1. *Conditions existing before labour, and facilitating uterine exhaustion*, including, besides any condition of impaired health, what one can at present only label as "idiosyncrasy," exemplified by those women who, despite reasonably good health and easy labours, suffer from *post-partum* haemorrhage in confinement after confinement. Such a condition cannot be forecast in a first confinement, and need never be overlooked in a subsequent one.

2. *Conditions occurring during labour, and producing uterine exhaustion*—a group practically equivalent to unduly prolonged and unduly precipitate delivery—for example, rapid delivery by forceps after a tedious second stage with consequent failure of pains. Even here the risk of *post-partum* haemorrhage is much diminished by leaving the placenta alone—not seeking by manual compression of the uterus to separate and expel it immediately.

Circumstances Governing Choice of Treatment.

Of these the first is the fact that the haemorrhage is severe, threatening life. Hence the measures chosen should be of prompt applicability and of immediate effect. They should be in action within a few seconds. The other circumstances are chiefly domestic. The majority of confinements take place in cottage homes (often lacking conveniences) where assistance is relatively slight and often unskilled. Here measures of treatment which are and ought to be matters of course in a lying-in hospital are out of the question. The *essentials* of treatment must therefore be independent of all but the most primitive accessories. The mechanism must be personal to the medical attendant. In fine it consists of his head and his hands.

In applying these considerations it is well to regard the problem not as peculiarly an obstetric one, but substantially as a problem in first aid to the wounded, the approximate but not the precise seat of the wound being known. The first object of treatment is the immediate arrest of haemorrhage. Precisely the same principles apply, precisely the same kind of measures should be employed, as in the case of a severely bleeding wound of a limb, namely:

1. *Pressure*—(*a*) Proximal to the bleeding area.
   (*b*) Local—at the bleeding area.
2. *Elevation* of the bleeding area.

The facility with which these measures can be applied depends to some extent on the assistance at command. Single-handed one can apply pressure. With one assistant it is possible to carry out both lines of treatment simultaneously. But the help of a second assistant greatly facilitates matters. There must be few occasions on which this assistance is not available.

The procedure here advocated may be described in connexion with an imaginary case. The patient's appearance suggests the condition present. The bedclothes are at once thrown off and the quantity of blood seen practically clinches the diagnosis. With one hand the abdominal aorta is compressed—an easy thing to do through the lax abdominal wall, and one which should not require more than three seconds. Meanwhile the nurse is called to the bedside and further assistance, if not in the room, is shouted for. The other hand separates the thighs and is then passed into the vagina. The cervix is felt and grasped with moderate firmness in order to steady it and so help the other hand in its next manœuvre. As soon as this is done the abdominal hand, leaving the aorta for the moment, "gathers" the relaxed and blood-filled uterus in its hollow, squeezes it, and presses it down in an anteflexed position against the vaginal hand, which meanwhile has been shut and moved into the anterior vaginal fornix. The anterior and posterior uterine walls are now pressed against each other by the two hands. At the same time some pressure, if thought desirable, is made on the aorta by the back of the wrist of the abdominal hand.

While this is being done an assistant places a pillow between the patient's head and the top of the bed to act as a buffer. As soon as the uterus is gripped between the attendant's hands the nurse lifts up the patient's pelvis as high as possible—practically to an angle of 60 or 70 degrees with the bed—that is, the patient is placed in the Trendelenburg position. The necessary counter pressure is given by the resistance of the bed-head to the head of the patient who now rests on the back of her shoulders, neck, and head. All the above manœuvres need not occupy more than thirty or forty seconds.

Meanwhile the additional help, which by this time has arrived, prepares whatever is necessary and available to maintain the Trendelenburg position in order to relieve and set free the nurse. Suitable mechanical supports are pillows, etc., a partly inverted chair, and a towel or sheet as a sling from the bed-top. Others will readily suggest themselves.

The above measures will, with practical certainty, secure the complete arrest of haemorrhage as soon as they are in operation. No other *local* treatment is attempted. But if the patient's condition suggest danger from low blood pressure, then her arms and legs are raised to the vertical and held there by the assistants.

When the uterus is felt to be firmly contracted (and on no account before this is so) the vaginal hand is withdrawn, and is then available for other purposes, a wet pad being applied to the vulva as the hand is withdrawn.

As soon as uterine contraction and the patient's general condition are satisfactory the pelvis is lowered to an angle of about 30 degrees and the abdominal hand removed, being returned from time to time to observe the condition of the uterus. A binder is tightly applied. The patient is kept in this elevated position for as long as seems desirable—never less than several hours—her legs being supported in a horizontal position. Whatever additional measures may be thought desirable for the maintenance of haemostasis and uterine contraction are applied, and suitable arrangements are made for the patient's general comfort.

Remarks on the Foregoing.

Proximal Pressure: Compression of Aorta.—The object of this is to check arterial haemorrhage by preventing blood reaching the uterus. It is the first manœuvre employed because it can be most quickly applied. Since almost the entire arterial blood supply of the uterus reaches it through the terminal branches of the aorta the effect of compression is to prevent this blood reaching the uterus, and *pro tanto* to diminish the haemorrhage. But compression of the aorta can have further effects. The uterus, being relaxed and containing much blood, extends a considerable distance up into the abdomen, lying in front of the aorta. Hence pressure on the aorta will be exerted through the uterine walls. The effects of this on the uterus will be to stimulate it in some degree to contract, to express blood from its interior, and to "block" the placental site should this be in the line of pressure.

As probably much of the haemorrhage is due to regurgitation from the iliac and caval veins it might be thought worth while to use the abdominal hand for simultaneous compression of the aorta and inferior vena cava. No doubt the greatly relaxed abdominal wall and low blood pressure would permit of this being readily enough done. But there are strong reasons against any attempt, for example, the slightly longer time required to get the hand into accurate position, the risk of failing completely to compress the aorta, the certain diversion by regurgitation to the uterine veins of blood returning from the lower limbs.

Local Pressure: Bimanual Compression of the Uterus—pressure of the anterior and posterior uterine walls against each other between the abdominal hand and the fist in the anterior vaginal fornix—has three objects, namely: (1) To "block" the open blood channels of the placental site by direct pressure, and so to prevent escape of blood from them. (2) To empty the uterus of blood. (3) To stimulate the uterus to contract, and so itself to continue to fulfil the other two objects. The area specially sought to be affected

is the placental site. As the exact position of this is rarely known the entire uterus is compressed in order that the placental site may not be missed. The compression of the placental site is calculated to check *all* haemorrhage, arterial and venous.

Bimanual compression of the uterus, the internal hand being within the uterine cavity, has been advocated as having the following advantages over the above method—the better emptying of the uterus of blood; the more direct compression of the placental site; a greater stimulus to the uterus to contract. Granted that in each method reasonably strong pressure is exerted, then it may be said of the intrauterine method that its first advantage is probably *nil*, at most very slight; its second is *nil*; its third is real, but probably not great. The outstanding disadvantages (they imply the corresponding advantages of the vaginal method) are (1) that a larger area of the flaccid uterine wall will escape compression, and this area may contain the whole or part of the placental site; and (2) the greatly increased risk of intrauterine sepsis, and this in a patient but ill fitted to cope with it. This risk is very great, for the urgency of the case forbids time being spent in any attempt at surgical cleanliness of the hand immediately before its introduction.

Of the two methods, the intrauterine one has slight advantages, serious disadvantages. The balance of value is obvious.

Elevation of the Bleeding Area.

This is of the first importance on account of its efficacy, simplicity, and facility. The more nearly the patient's inverted trunk is to the vertical the more effective is this haemostatic. The effects of this position are that venous haemorrhage by regurgitation is rendered practically impossible, whilst arterial bleeding is greatly diminished. Indeed, where much blood has already been lost, and consequently the heart's action is feeble and the blood pressure low, it is probable that little, if any, arterial haemorrhage would occur even were no other treatment resorted to.

But further important effects follow. Elevation of the pelvis not only automatically lessens or arrests bleeding, it also by gravity drives the unshed venous blood back to the heart and facilitates the flow of blood to the brain, in both of these ways stimulating circulation and respiration at precisely the time when this is most urgently needed. Nay, further, should the patient's condition seem desperate despite these measures, it is enough in addition to have the four limbs held vertically up to secure that practically all the blood in the body is (anatomically) above the level of the navel. If this cannot secure enough blood nourishment to the vital centres there is nothing that can do so short of the introduction of fluid from without. The elevated position recommended greatly facilitates the rapid introduction and retention of such fluid—for example, enemata of hot saline solution.

The degree of elevation here advocated may suggest a risk of air embolism from "adspiration" into the uterus and thence to the uterine veins on withdrawal of the vaginal hand. Whatever this risk might be it is counteracted by two precautions, namely, (1) uterine contraction; the hand is not to be withdrawn from the vagina until this natural preventive is in active operation; while it is so in operation air may enter the vagina, but cannot enter the uterus; (2) closing the vaginal orifice with a wet pad on the vulva as the hand is withdrawn. This prevents a rush of air into the vagina.

CONCLUSION.

In the foregoing remarks I have sought to emphasize the great importance of high elevation of the pelvis as a *primary* measure because I know of no contra-indication to its use; because it does not interfere with any other appropriate measure of treatment; because it promptly, simply, and effectively deals with the immediate cause of great danger; and because it continues to act in the promotion of the patient's subsequent recovery. It is almost incredible that there have not been many men who on many occasions have used to check *post-partum* haemorrhage a measure so simple, easy and effective, resting on a principle so familiar as the law of gravity, and taught and employed time out of mind in connexion with wounds of the extremities. I have therefore been surprised to find that of the many obstetricians, general and special, to whom I have mentioned the matter in conversation, every one found the suggestion a novelty. I have looked up a number of English and American textbooks on midwifery. In none of these did I find any mention of this measure of treatment. It is true that elevation of the pelvis by raising the foot of the bed after arrest of haemorrhage has been secured is mentioned. But the employment of the high position as a primary measure rests on a quite different conception from the other. From that the elevation advocated in this paper differs in its object, its degree, and in the time and mode of its application. There would thus appear to be some ground for thinking that familiarity with the use of this measure is not as wide as it might be. It is for this reason that I have sought to call special attention to its value.

Of the whole line of immediate treatment advocated above, the essential value lies in these facts:—it is simple in application; it is prompt and effective in action; and it is entirely personal in its mechanism; that is, it is independent of environment, it needs no "apparatus," it is carried out as easily in a hut as in a hospital.

CAESAREAN SECTION IN A PITMAN'S COTTAGE.

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ON September 7th, 1915, I was asked by Dr. Anderson, of Seaham Colliery, to see a patient who had been fifteen hours in labour at full time without any signs of the head engaging in the pelvis. There was a history of two previous labours which had ended in the sacrifice of the child.

Measurements showed the conjugate diameter to be just over 3 in., and the promontory of the sacrum was within rather easy reach by digital examination.

As the parents were very unwilling to risk the loss of another child, and as the conditions demanded either craniotomy or Caesarean section, I elected to do the latter.

There was one clean room available; the removal of superfluous ornaments, hangings, and furniture was followed by a cleansing with a damp cloth and the spraying of the walls, floor, and ceiling with formalin; the room was then closed for two hours; this gave me the nearest approach possible in the circumstances to the surroundings of an operating-room. Meantime detailed preparations were made for the sterilizing of all necessary articles. Two drums of sterile dressings and masks can always be at hand, but in addition I transported a small Cathcart sterilizer, which was placed on a gas ring, and towels and gowns were steamed, sterilized, and dried in this. Instruments and gloves were easily dealt with in the small portable sterilizer contained in most operating bags. The skin of the patient was prepared in the usual way, and after being thoroughly dried, was coated with a 2½ per cent. solution of iodine in spirit and water.

Preparations were all completed within three hours from the time the message was received; the patient's condition was good, the pains strong and frequent, and re-examination revealed not the slightest progress.

The details of the operation scarcely differed from the description in Berkeley and Bonney's *Gynaecological Operations*, and included the use of boiled silk throughout except for skin sutures. A variation from their technique was, I think, a slight improvement for the prevention of haemorrhage from the cut uterine surfaces. A large vulcanite pessary was boiled along with the instruments, moulded to the shape of a cartouche, fixed in this position by tying with silk while it was still plastic, and re-hardened in cold, sterile water. By pressing firmly on one side of this myself, and the assistant doing the same on the other side, we had no difficulty in avoiding bleeding. I believe this method was suggested years ago by Professor Murdoch Cameron of Glasgow.

The child, a girl weighing 8 lb., was easily removed and breathed at once. It lacked the usual frontal and occipital moulding of the ordinary baby, and therefore looked more

like a child a month old. The mother made an uninterrupted recovery; the pulse never rose above 76, and the temperature was normal throughout, not showing even the ordinary rise when the milk flow was established on the third day.

An examination of the pelvic brim from inside showed the promontory of the sacrum projecting forward and considerably larger and wider than usual. The os was very fully dilated, and there was free drainage by the vagina in the normal way.

I should much have preferred the comfort of a nursing home for this operation, but it was not possible, and I am convinced that many operations involving the transport of the patient by road could quite well be done at home. Except for the air and dust of the ordinary room, one can have all the other essentials of complete asepsis, provided one has a good surgical nurse. But, of course, it is more trouble.

In 1907, at the spring meeting of the Northumberland and Durham Medical Society, I showed a number of major abdominal operations done in private houses, and an interesting discussion took place on the possibility of doing most operations in the homes of patients, and thus relieving the pressure on hospitals.

I was much indebted to Dr. William MacMurray for valuable help, to Dr. Anderson for very efficient anaesthetizing, and to Nurse French for vigilant preparations both before and after the operation.

THE INFLUENCE OF SYPHILIS ON THE CHANCES OF PROGENY.

BY

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THE effect of syphilis on the child-bearing capability of a woman is well-known, but there are few definite figures that set out this common knowledge in an easily remembered fashion; for this reason the figures presented in this paper may be of interest.

At the annual meeting of the British Medical Association in Aberdeen (1914), I presented to the Ophthalmological Section a paper giving a return of the causes of blindness in eleven hundred children, with special reference to the influence of venereal disease.[1]

In the investigation of the case-papers of these 1,100 children I found, in a large number of cases of children whose blindness was the undoubted effect of parental syphilis, that I had investigated the family history—that is to say, the mother of the child had been seen and the history of her married life, so far as its results in the matter of pregnancies and the results of these pregnancies were concerned, had been tabulated. These detailed family histories number 150. In each of these families one or more of the children had been under my care, often for many years, and were undoubted sufferers from congenital or inherited syphilis. Besides the state of blindness due to this cause, either by reason of interstitial keratitis, iritis, or disseminated choroiditis, there were other indubitable signs of syphilis in Hutchinsonian teeth, the characteristic physiognomy, radiating scars at the angles of the mouth, evidence of bone or joint disease, ulceration of the nose or palate, deafness. Whatever may be said for and against the evidential value of the widely-used blood tests for syphilis, there is no doubt in the minds of any one of the certainty of the evidence presented by the finding of these other clinical features. Hutchinsonian teeth alone give certainty; the association of this form of teeth with one or more of these other clinical characters provides a superabundance of certainty. This was the fact with regard to these 150 families; in no less than 68.5 per cent. Hutchinsonian teeth were present in the blind child of the family, and besides the teeth, one, two, or three other symptoms were noted. In those cases where the evidence of the teeth was lacking there were the other symptoms in sufficient number to leave no room for doubt as to the cause of the state of blindness.

TABLE I.—*One Hundred and Fifty Syphilitic Families.*

No. of Pregnancies for each Mother.	No. of Families.	Healthy Children.	Miscarriages	Still-births.	Infant Deaths	Affected by Syphilis.
18	1	10	—	—	7	1
17	1	6	2	7	1	1
16	1	1	—	—	14	1
15	1	6	2	1	5	1
14	3	11	5	7	13	6
13	5	17	4	10	26	8
12	4	21	6	7	11	3
11	10	50	8	6	33	15
10	7	32	8	3	18	9
9	10	33	11	7	22	17
8	16	54	21	7	17	27
7	15	50	9	4	18	24
6	14	24	3	8	14	25
5	11	23	3	6	6	17
4	17	22	4	5	19	18
3	13	16	2	1	3	17
2	10	4	1	1	3	11
1	11	—	—	—	—	11
Totals ...	150*	390	92	80	229	210

* = 1,001 pregancies.

Amongst the eleven families to which only one child was born there were four illegitimate unions and the progeny therefrom; all these eleven were blind children and alive at the time of the inquiry.

The column "healthy children" includes all those children reported healthy by their parents or guardians. In the majority of cases it was not possible to examine them, so that the statement of health must be taken with reservations. It also includes those children who had died from accidental causes or from febrile conditions from the age of 3 years and onwards where there was no reason to suspect that the fatal disorder was connected with syphilis.

The column headed "affected by syphilis" includes all those seen by me and ascertained to be the subjects of definite syphilitic conditions. Taking into consideration the statement made regarding those entered as "healthy" it will be seen that any error in the table under-estimates the number of the syphilitic and over-estimates the number of "healthy."

The history of these 150 families set out by themselves would provide a characteristic picture; but for the proper appreciation of this picture it is necessary to set beside it another picture, one giving the family history of an equal number of women who were neither the subjects of syphilis nor the progenitors of syphilitic children. This second picture has been prepared, and the contrast between the two is interesting in the extreme. The standard of comparison provided in this second picture was obtained by an inquiry into the family history of a number of women who were attending the West London Hospital. This hospital has a very large *clientèle*, and the patients are amongst the poorest and most deserving of charity of any attending the great London hospitals. On the average these women were if anything a little poorer than the average of the syphilitic parents whose family histories mainly concern us. The history of 150 women was inquired into; there was no selection of cases, except that where one of known syphilitic history was found she was excluded from the count. But no special measures were taken to ascertain whether or no there was any syphilitic taint. The return obtained from the investigation of the family histories of these women may be taken as a fair average return of family history for the poorest section of the London community.

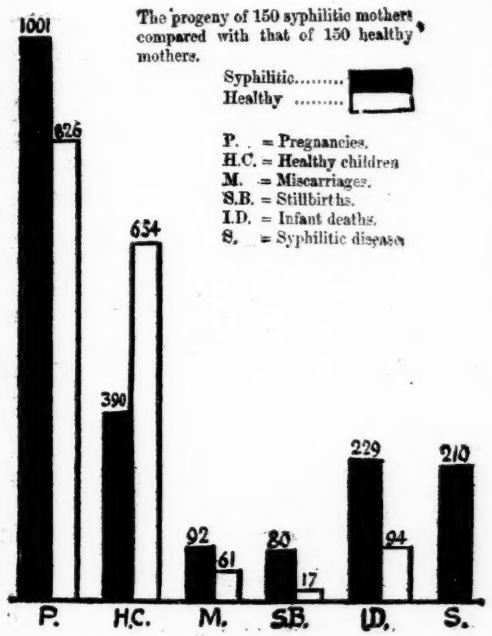
The comparison of Tables I and II can best be made by means of the familiar device of parallel columns; the

TABLE II.—*One Hundred and Fifty Healthy Families not known to be Affected with Syphilis.*

No. of Pregnancies for each Mother.	No. of Families.	Healthy Children.	Miscarriages.	Still-births.	Infant Deaths.
17	1	9	3	—	5
16	1	11	3	—	2
15	2	19	1	3	7
14	1	12	2	—	—
13	3	28	4	—	7
12	3	25	4	3	4
11	6	55	2	2	7
10	6	40	6	3	8
9	7	51	4	1	7
8	9	55	8	—	9
7	6	31	5	—	6
6	17	83	6	1	12
5	15	62	5	2	6
4	17	57	4	—	7
3	25	68	3	1	3
2	20	35	1	1	3
1	11	10	—	—	1
Totals ...	150	654	61	17	94

* = 826 pregnancies.

diagram shows such a graphic representation. The difference between the results of the fertilization of these two sets of women is remarkable; 150 syphilitic mothers had no fewer than 1,001 pregnancies, but of these only 390 resulted in presumably healthy children. And it must be remembered that in these cases not every mother began her maternal career as an affected woman; many of the pedigrees show that she was healthy and bore a number of healthy children before the taint affected her; after



that, miscarriages, still-births, and diseased children were born. On the other hand, 150 healthy mothers had 826 pregnancies, and from these there resulted 654 healthy children.

The outcome of the pregnancies of the two classes may be compared further by setting them against each other on the basis of a thousand pregnancies, thus:

TABLE III.—*Rates per 1,000.*

Parentage.	Healthy Children.	Miscarriages.	Still-births.	Infant Deaths.	Diseased with Syphilis.
Syphilitic ...	390	92	80	229	210
Healthy ...	791.7	73.8	20.5	113.8	—

Remark may be made on the fact that the syphilitic mothers had about 17 per cent. more pregnancies than the healthy mothers. This may be accounted for in part by the frequency of miscarriages and still-births in the syphilitic. The short intervals between many of these would allow of several ineffective pregnancies within the same time as would be taken for one full pregnancy in a healthy mother. Further, the frequency of these ineffective pregnancies and the many infant deaths would keep the family of the syphilities down, so that where there is a desire for children the pregnancies would be increased in number.

It is unnecessary to point the moral, the figures speak sufficiently of the influence of parental syphilis on the chances of healthy progeny.

REFERENCE.
[1] BRITISH MEDICAL JOURNAL, August 29th, 1914, p. 390.

A SPLINT FOR COMPOUND FRACTURE OF THE ANKLE.

BY MAJOR M. SINCLAIR, R.A.M.C.

THIS splint was first applied to a compound dislocation of the right astragalus, but could be used for any compound injury in that region. Astragalectomy had been performed by Captain St. John D. Buxton, R.A.M.C., who asked me to suggest a method of fixation which would allow easy access to the wound.

There were minor injuries to the skin posteriorly, and great oedema due to septic infection of the foot and ankle as far as the knee. The ankle required frequent dressings, and the foot could neither be kept in good position nor quiet, and caused great pain to the patient.

A splint was constructed to fix the foot at a right angle, to immobilize the ankle, and allow ready access for dressings.

The patient was in hospital for three weeks, and was sent home in the splint, which proved so satisfactory for treatment and transport as to make its construction and method of application worth recording.

The splint was made out of the aluminium splinting from the field service fracture box in the following way:

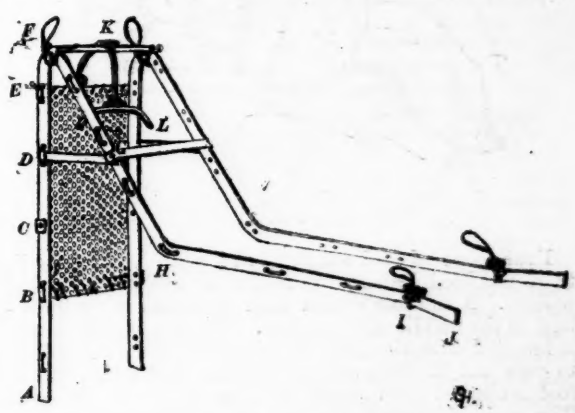


FIG. 1.—A F = 15 in.; F H = 11 in.; H I = 11 in.; I J = 3 in. Total length = 40 in.

A length of aluminium of 40 in. is bent on its edge at F to an angle of 40 degrees, at H to an angle of 130 degrees, and bent on the flat at I to an angle of 45 degrees.

Another length of 40 in. is bent in the same way, having the staples corresponding and on the outside.

These two pieces are riveted at C and F, parallel and 6 in. apart, with 8 in. by ½ in. by ¼ in. aluminium.

The transverse bar at F has a staple, K, in the centre, from which the foot is slung. Transverse bars of ribbon aluminium are fixed at B and E, and to these a sheet of perforated zinc 5 in. by 10 in. is laced with wire to form a smooth support for the sole of the foot. From D a strip of ribbon aluminium runs at right angles to F A as far as the point G. Another strip of aluminium ribbon runs from G to the corresponding point on the other half of the splint, and the junctions at G are fixed by riveting.

These supports give the necessary rigidity, prevent the angle at F enlarging owing to the weight of the limb, and the respective supports D G fix the ends of the bandage which keeps the dressings in position. L is an arc of aluminium 4 in. in length with a central staple to which a cord is attached. It is placed in the toe of a sock in which is a small hole for the cord.

The arc L acts as a spreader to prevent crowding together of the toes when the foot is suspended.

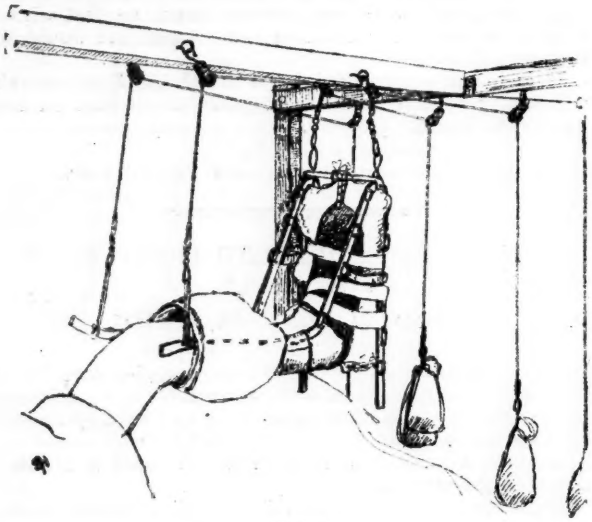


FIG. 2.

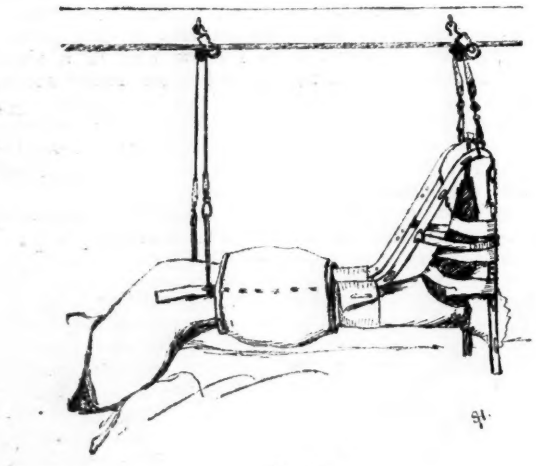


FIG. 3.

Four loops of cord are fixed at F and I to sling the limb to a modified Balkan by means of weights, cords, and pulleys. A suitable cotton sock is cut obliquely from the heel to the middle of the instep. The arc of aluminium, L, is inserted into the toes of the sock and the cord allowed to pass out through a small hole at the extremity. The foot is cleaned with petrol or ether to remove the grease. The sock is applied dry and its outside painted with a solution of equal parts of Canada balsam in xylol, Venice turpentine, and ether. When dry a layer of cotton-wool is placed between the perforated zinc and the foot, and the two fixed together with a band of adhesive plaster round the dorsum. The cord from the arc L is adjusted until the bars H I are parallel with the bones of the leg. The latter is embedded in a plaster case extending down as far as convenient (about 6 or 7 in.) from the tuberosity of the tibia. The uncovered portion of the leg is supported with suspensions of elastic webbing or bandage. The foot is now fixed at right angles to the leg.

Figs. 2 and 3 show the splint applied to a patient and slung by four cords, snap hooks, sandbags, and eight pulleys to a modified horizontal bar. This gives the patient free movement in bed and the attendants ready access to the wounds.

BRONCHOPNEUMONIA WITH SECONDARY HAEMORRHAGIC MENINGITIS AND RECOVERY.

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IN the course of a series of some 14 cases of broncho-pneumonia in children, occurring nearly a year ago, the following somewhat remarkable case was encountered—to wit, a mixed meningeal infection with spontaneous recovery. The mixed infection was, so far as was ascertainable, due to Fraenkel's pneumococcus, together with Friedlaender's diplobacillus, the latter in great numerical predominance.

The original investigation was undertaken with a view to confirm or dispel Hutchison's suggestion that a streptococcal strain in bronchopneumonic infection is of grave prognostic import, quite apart from other considerations.

The sputum was obtained by first slightly irritating the pharyngeal wall and so causing a short onset of coughing and production of sputum, a sample of which was obtained on a sterile platinum wire and straightway inoculated on blood-agar, all contact with mouth or fauces being most carefully avoided. Thus the proverbial difficulty of obtaining infantile sputum was overcome.

The particular case in question was one of a series of cases of infantile bronchopneumonia admitted last January to a London infirmary. All but two were under the age of 3 years. A very large proportion of these cases showed the predominance of the pneumobacillus (Friedlaender's) both in smears and in cultures from the sputum.

It is relevant in this connexion to recall the chief morphological and cultural characteristics of these two pneumonic organisms, not for didactic purposes, but as a labour-saving device.

The *Pneumococcus lanceolatus* is Gram-positive, and stains deeply in sputum, often (in these cases) showing chains of two, three, or four pairs, and is encapsulated. As a rule there were series of long chains which showed all transitions from a typical streptococcal arrangement to a gradual separation into diplococci, the morphological explanation of which should prove interesting. On blood-agar the colonies were almost transparent, and very small when found separate, and this was only at the edges.

The pneumobacillus, on the other hand, is Gram-negative. It is also encapsulated, and both forms reveal encapsulation remarkably well in sputum. The colonies resemble knobs of ivory, and a stab culture shows a characteristic "nail-like" form with a process in the substance of the agar; the "head" is a heaped-up mass, densely white. The organism is non-motile. This latter fact, together with morphological considerations, and its presence in sputum, also the absence of intestinal symptoms, enabled one to make sure that one was not dealing with *B. enteritidis* of Gaertner, which has one or two similar characters. It is, for instance, Gram-negative, and produces haemorrhagic lesions, including a single recorded case of "meningitis haemorrhagica," a clinical entity for whose existence this organism is held to be solely responsible, when considering the group it represents.*

The sputum contained other organisms besides these two, such as staphylococci and diphtheroid rods, but these were not of significance in regard to the meningeal symptoms.

CASE.

A boy, aged 18 months, was admitted on December 29th, 1914, with marked meningeal and chest signs and symptoms.

History and Condition on Admission.

Save for the fact that he had not been ill before two days earlier, and that he had been fed on cow's milk, no history was

* Muir and Ritchie: *Manual of Bacteriology*, 1913, p. 385.

forthcoming. On admission the temperature was 97°, and, curiously enough, remained subnormal throughout, possibly indicative of a severe haemia, and so of a bulbar toxaemia, with paralysis of the heat-regulating centres. The respirations were 42, the pulse 112.

Central Nervous System.—The meningeal signs and symptoms were as follows: There was head retraction to a marked degree, *tache cérébrale* and Kernig's sign, with rigidity of the legs, the right leg being flexed more than the left; he screamed intermittently but frequently in a typical manner. The knee-jerks were increased, and the plantar response was (probably because he had not learnt to walk) doubly extensor, but notably brisk. He had a left internal strabismus. He appeared to be thin, and showed loss of flesh whilst under observation. He was extremely peevish and mentally irritable. The three highest mental faculties were all impaired—to wit, attention, judgement, and self-control. No convulsions occurred.

Respiratory System.—The child had pneumonic breathing, patchy dullness at the lower angles of the scapulae, below the left clavicle, and markedly at the bases, with fine crepitations.

Sputum.—Examination of the sputum showed a large number of pneumobacilli, strepto-diplococci (adherent pneumococci in chains in all stages of separation up to twenty pairs or more), and ordinary detached pneumococci.

Lumbar puncture yielded about 10 c.cm. of turbid fluid, with a negative haemoglobin spectrum. This was centrifugalized, and also inoculated on blood-agar directly. Cultures of pneumobacilli and pneumococci were found alone. The former enormously predominated.

After-History.

On the seventh day of illness (January 3rd, 1915), that is, five days later, the condition of the child had markedly improved. He was much quieter, and screamed only occasionally during the day, but he was still restless at night, crying out often. The following mixture was found to be effectually sedative: Pot. brom. gr. iv, tr. bellad. ɱ iij, glycerine ɱ x, aquam ad ʒj; sig. ʒj nocte p.r.n. Head retraction and squint were still present, as also was Kernig's sign. The pneumonic condition was much the same as before, but pneumonic breathing, instead of being continuous, only occurred if the child were disturbed. The pulse was 85 and the respirations 30. Eight days later, on the thirteenth day of illness (January 11th, 1915), lumbar puncture was again performed and the fluid was thickly haemorrhagic, and cultures showed abundant colonies of Friedlaender's bacillus and a few pneumococcal colonies also.

The condition of the child improved after this. Only a few rhonchi were noted in the chest, and pneumonic breathing had ceased. Cerebral scream had also vanished, but the child was irritable. Kernig's sign could not be obtained; there was no squint, and much less head retraction.

On January 15th, 1915—that is, the nineteenth day of illness (four days later)—the child was sitting up and taking an interest in his surroundings, to all intents and purposes quite well, although thin and wan to the eye. The lungs were now clear.

Lumbar puncture, cultivated on blood-agar, showed pure Friedlaender's bacilli. The fluid thus obtained was still haemorrhagic.

On January 18th—that is, twenty-second day of illness—a final lumbar puncture was performed. The fluid was tinged with blood, but quite sterile on inoculation.

The child was normal in behaviour, slept and fed well, and was not in the least fretful. All nervous signs had disappeared, including squint. A second examination of the sputum showed staphylococci, pneumococci, also pneumo-streptococcal forms, and notably enormous numbers of pneumobacilli in smears.

The question arises whether what was taken for pneumobacilli were not in reality *B. enteritidis* of Gaertner, since this organism has been known to cause a meningitis characterized by haemorrhagic lesions likewise. Against this is the fact that this case showed no intestinal symptoms, and that 13 other cases of bronchopneumonia in the same ward showed no intestinal symptoms, and all showed in the sputum predominance of pneumobacilli, which were morphologically pneumobacilli and had the pathognomonic "nail-like" culture form. Unfortunately, lack of apparatus prevented me testing the indol and lactose reactions, but I can assert that the organism was non-motile. Moreover, I venture the opinion that clinical guidance was both confirmatory and reliable in this case. So far as I can ascertain, *B. enteritidis* has not been recorded in the etiology of bronchopneumonia. I therefore ruled out *B. enteritidis*.

Some writers identify the pneumobacillus with *B. lactis aërogenes*, which occurs most commonly in sour milk. That this may be true I do not dispute theoretically, but even so this is irrelevant to the essential substance of my thesis. Possibly it may be argued that this series of cases is in favour of this more improbable contention, since children in poor circumstances at such a tender age and with such careless mothers as some of them have, may well receive sour milk for food. But it seems strange that a normal inhabitant of the intestine should, for no particular reason, suddenly migrate to the meninges to assume a pathogenic rôle, having previously attacked the bronchial mucous membrane. The total absence of intestinal disorder also contravenes this particular explanation. It is therefore not unnatural to conclude that one was dealing with a strain of true Friedlaender bacillus as originally contended.

Critics may rightly ask why splenic and blood cultures were not made. The answer is that the particular case occurred in an investigation undertaken for a totally different purpose, and that it was not until I came across the notes of the case in revising the others that it occurred to me to record it; then the opportunity for making such cultures had gone, the child having disappeared.

I have noted the case for a dual purpose. Firstly, to demonstrate the prognostic value and manner of sputum examination in children with bronchopneumonia, and secondly, in the hope that a clinical variety of meningitis, with a favourable prognosis, may be established—and this is submitted as a desirable objective from the medical, from the maternal, and especially from the national point of view, in face of the heavy toll of childhood which meningitis in all its forms exacts to-day, when more than ever do we require to conserve a healthy childhood.

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TRAUMATIC RUPTURE OF THE SPLEEN: SPLENECTOMY: RECOVERY.

BY

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A HEALTHY married woman aged 31, the mother of four healthy children, spent the first twenty-one years of her life in South Africa and never had a day's illness. Since living in this country she has from time to time suffered from a fairly severe degree of anaemia, but has never needed a doctor except for her confinements.

On August 6th, at 3 p.m., she found a nail projecting through the sole of her boot. She stood up on a kitchen chair to reach a set of boot lasts and a hammer from a shelf (Fig. 1). The chair tilted forwards, the hind legs

FIG. 1.

FIG. 2.

FIG. 3.

leaving the ground, her feet slipped. She fell forwards, striking her epigastrium on the edge of the chair-back (Fig. 2). Her weight then carried the hind legs of the chair to the ground, and she received a second and more severe blow as the hind legs regained the ground (Fig. 3). She continued with the job in hand, picked up the boot lasts and hammer which had slipped from her grasp, and having satisfactorily knocked down the nail in her boot, again stood on the chair, and replaced the boot lasts on the shelf. This accomplished she felt faint and sick, walked upstairs to her bedroom, and lay down.

One of her children was then dispatched to me. Unfortunately I was out, but on my return at 6 p.m. I went to her house and found a colleague had in the meantime been sent for and had, about twenty minutes previous to my arrival, given morphine gr. ¼ hypodermically. The patient was lying in bed blanched and nearly pulseless, with the

knees slightly flexed and her hands under the back of her head, resting on the pillow. The pulse was 130, the temperature 98° F., and the respirations 32. The pain, which had been very severe, was easier; she had not vomited, but felt sick, and complained of a desire to micturate, which she had been unable to satisfy.

There was no visible sign of injury, such as a graze or bruise, but the whole abdomen was rigid to palpation. The point of maximum tenderness appeared to be to the left of the mid-line and in the left iliac fossa, but her condition was too grave to justify questioning. To percussion the whole of the left flank seemed duller than the right, but no definite shifting dullness could be found. The liver dullness was normal. The catamenia were regular and no period had been missed. I ordered her immediate removal to hospital.

At 7 p.m. she was anaesthetized with open ether. Examination then revealed definite dullness in the left side of the abdomen, which did not shift. A catheter was passed and about 8 oz. of pale and normal-looking urine withdrawn. The only possible diagnosis was severe internal haemorrhage, and the spleen appeared the most probable source in view of the fact that the urine was normal. It was impossible to exclude injury to the gastro-intestinal tract in addition.

Operation.

A median incision was made below the umbilicus and free blood could be seen through the peritoneum before this membrane had been incised. The incision was then extended upwards. The peritoneal cavity was full of blood and blood clot. On commencing to remove the latter, bright fresh blood welled up extremely profusely. Examination revealed to the touch a tear in the visceral surface of the spleen. The bleeding appeared to be controlled when the splenic artery and vein were compressed. This was effected with the left hand whilst the spleen was brought into view with the right. The tear was then seen to extend through the hilum involving the point of entry of the vessels.

As time was of the utmost importance, no effort was made to isolate the individual vessels. A pedicle needle was passed through the extreme tail of the pancreas and one ligature made to include the whole vascular pedicle of the spleen, which was then removed. The peritoneal cavity was cleared of blood and clots and then flushed with normal saline at a temperature of 112° F. The incision was closed in layers, and as much saline left in the cavity as could be retained. At the conclusion of the operation the colour was better, the pulse 120 but much fuller, and the respirations 36.

After-Treatment.

The patient was put in the low Trendelenburg position, and rectal saline injections were immediately started. To the first saline injection of 2 pints, brandy 1 oz. and aspirin gr. xv were added. The instructions were to repeat the saline injections every two hours as long as the patient could retain them, and that the bed was to be put flat at the expiration of four hours. The following morning the head of the bed was raised on high blocks.

The patient made an uneventful recovery. The temperature rose to 100° in the first twenty-four hours, but thenceforward remained normal or subnormal. No external bruising ever developed, nor was there any injury to ribs.

REMARKS.

The main interest in the case appears to lie in the fact that it is possible to sustain such a severe injury from a comparatively trivial accident. The patient is an averagely covered woman, weighing 8 st. 7 lb., and stands 5 ft. 2½ in. Macroscopically the spleen appeared healthy.

I am indebted to Dr. Penny for giving the anaesthetic and to Dr. W. B. Maurice for assisting me at the operation.

The accompanying sketches are intended to illustrate precisely how the injury occurred; and Dr. H. M. Turnbull, Director of the Pathological Institute, London Hospital, who kindly examined the spleen for me, reports that with the exception that it was very anaemic, it was otherwise normal in every way.

TRAUMATIC RUPTURE OF SPLEEN.

WITH A FEW NOTES ON THE BLOOD.

BY

CAPTAIN E. H. JONES, M.B., B.S., R.A.M.C.

THE patient whose case is here related was admitted to the Preston Royal Infirmary, October 31st, 1912, under the late Dr. Garner.

T. W., a boy aged 10, had fallen a distance of 20 ft., coming in contact with a tree stump. He walked 100 yards and then fainted. He was admitted to hospital the same evening, with signs of intra-abdominal injury.

Operation.

On opening the abdomen by the high rectus incision I found that the peritoneal cavity contained much free blood, the source of which was found to be the spleen, which was almost completely severed. The organ was removed through a transverse incision, commencing at the apex of the exploratory opening, and the abdomen closed hurriedly.

After-History.

For seven days progress was uneventful. On November 7th, 1912, the temperature shot up to 104° and reached 105° on the next four days. The patient had definite bronchopneumonia, the temperature returning to normal by lysis by November 19th, 1912.

He was discharged on December 18th, 1912.

I saw the boy on November 14th, 1915 (three years after the operation), and he was quite healthy, doing half-time at the mill.

Blood Counts.

On November 3rd, 1912 (three days after the operation), the blood count was—

Red cells	3,500,000
White cells	15,600
Polymorphonuclears	36 per cent.
Mononuclears	64 per cent.

Following the bronchopneumonia the blood count was—

Red cells	3,500,000
White cells	21,200
Polymorphonuclears	58 per cent.
Mononuclears	42 per cent.

On December 4th, 1912, the blood count was—

Red cells	3,000,000
White cells	11,000
Polymorphonuclears	68 per cent.
Mononuclears	28 per cent.
Eosinophiles	4 per cent.

A year later Dr. Leigh kindly examined his blood for me, and found mononuclears rising in percentage and eosinophiles up to 6 per cent.

On December 14th, 1915, Dr. Tindall, the honorary pathologist to the Preston Royal Infirmary, made a final count, which was as follows:

Red cells	3,200,000
White cells	6,900
Polymorphonuclears	56 per cent.
Mononuclears	44 per cent.

A case Dr. Collinson operated on during the same period, a lad of 19, showed lymphocytosis, which persisted for at least a year, without the return of a higher polymorphonuclear count such as accompanied the bronchopneumonia in my case. Dr. Collinson's case showed an eosinophilia of 12 per cent. twelve months after the operation. This patient is now serving with the colours.

The cases are interesting as showing (1) the original leucocytosis, (2) a relative lymphocytosis of some duration, (3) the transient eosinophilia twelve months after removal of the organ, (4) the absence of any adverse effect following removal of the spleen.

A CASE OF PROBABLE SPONTANEOUS RUPTURE OF THE SPLEEN.

BY W. B. OGILVIE, LIEUTENANT-COLONEL I.M.S.,
SUPERINTENDENT, DELHI GAOL.

IT is recognized that this case is not a well proved one, but such cases are of so much deep interest to those working in tropical countries that it is thought worth while to record it, incomplete though it is.

Prisoner, male, aged 28, had been in gaol for three months, during which time he had never been in hospital, and his weight had remained steady. On a Sunday he did none of his ordinary work—paper making—but washed his clothes and

bathed, according to the usual routine. On the Monday he ate his full morning meal. He then reported sick, and was detained in hospital. He complained of fever, chill, and cough during the previous night; his temperature was 99.4°. He did not complain of any discomfort in the abdomen, nor did he admit any fall or blow. Careful inquiry failed to elicit any history of a fall or blow. On admission the spleen was enlarged. In the evening his temperature was 102°. He ate the greater part of his evening meal, and complained of nothing beyond the fever. About 10 p.m. he vomited twice or thrice. At midnight he became suddenly collapsed, and died at 1.20 a.m. on the Tuesday.

Post-mortem Examination.—The body was well nourished; rigor mortis was present; there were no marks of violence. The examination was held fifteen hours after death; the body was quite fresh, and showed no signs of commencing decay. The weather was cold and dry. All the tissues were anaemic to a degree. The abdominal cavity was full of clotted blood and clear serum. The spleen was enlarged to twice the normal size, and looked black. On its anterior surface was a tear about 2 in. long. On removing the spleen, the capsule was seen to be distended with firmly clotted blood. The spleen itself was anaemic, the colour was the "light red" of the paint-box, and the substance was almost diffluent—about the consistency of thick porridge. The other organs were normal.

What apparently negatives the possibility of a blow having been received before admission to hospital, and rupture of the spleen thereby, is the steady rise of temperature. Had the spleen been ruptured by a blow there would probably have been shock, and almost certainly no rise of temperature; the internal haemorrhage would have kept the temperature down.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ICHTHYOL IN ERYSIPELAS.

A MAN was admitted with a large suppurating wound on the inner side of the arm, with some redness and swelling around the wound. The temperature rose next day to 104° and then to 105°. The usual signs of erysipelas were present, the redness and swelling extending below the elbow. I ordered the arm to be painted every twelve hours with ichthyol and glycerine equal parts, and covered with oil-silk, and gave him a mixture containing large doses (2 drachms every four hours) of liq. hydrargyri perchloridi. In forty-eight hours the temperature was normal, and all the local symptoms of erysipelas had disappeared; the wound was then dressed with ordinary hypertonic saline solution.

In another case, of a man sent from the trenches with both arms covered with boils, local treatment by ichthyol and glycerine had equally good results.

HELEN SEXTON, M.B., Ch.B.
Médecin Chef, Hôpital Australien, Paris.

RELAPSING BERI-BERI.

THAT beri-beri is due to the deficiency or absence of substances called vitamines; that polished rice is one of the common food substances deficient in vitamines; and that beri-beri is found practically only in rice-eaters—these are the commonly accepted views about the etiology of this interesting ailment, and it may therefore be well to record any definite cases where the disease was clearly not due to rice eating or, indeed, to any obvious want of vitamine substances. The patient, aged about 28 years, was a soldier on sick leave. He contracted beri-beri in India. His was the regulation army diet—meat, vegetables, milk, bread, butter, tea, coffee. On a rare occasion he would take a bit of rice or sago pudding, but at no time of his life was he ever on an exclusive or continuous rice dietary. He had exhibited the usual symptoms—multiple peripheral neuritis, some paralysis and some anaesthesia, very considerable weakness, cardiac dilatation, and oedema of the legs. Under treatment for some months in bed he improved, but signs of cardiac dilatation with a definite bruit still remained. Oedema of the lower extremities was intermittent. He was liable to relapses of the condition whenever he fell into ill health from any cause. These were accompanied by hyperaesthesia of the muscles and of the nerve trunks. During the periods of remission no physical sign of the disease could be seen, except the evidence of cardiac dilatation.

The usual cardiac tonics, as iron and digitalis, appear useful for the heart trouble, but nothing seems to have any specific effect on the beri-beri.

J. C. MCWALTER, M.D., D.P.H., R.A.M.C.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

THE LORD DERBY WAR HOSPITAL, WARRINGTON.

A CASE OF SUDDEN HEART FAILURE UNDER ANAESTHESIA: DIRECT MASSAGE OF HEART: RECOVERY.

(By GERALD SICHEL, F.R.C.S., Captain R.A.M.C.)

PRIVATE —, aged 22, was admitted on September 29th, 1915, suffering from a severe gunshot wound of the left hand, received in France on September 26th. A rifle bullet had struck the middle finger, almost completely severing it; the wound was very septic.

He was treated with hypertonic saline baths, and syringing with hydrogen peroxide, and the wound cleaned up considerably. As it was considered necessary to amputate the finger he was, on October 4th, given a general anaesthetic—a mixture of chloroform (two parts) with ether (three parts), and alternately pure ether on an open gauze mask. He was taking the anaesthetic quite well, and was wheeled from the anaesthetizing room into the operation theatre.

He was lifted on to the operation table, when he suddenly became ghastly white, sweated profusely, and the pupils became widely dilated. Breathing continued slow and regular, but rather shallow. No pulse or cardiac impulse could be felt, or heart sounds heard. An incision a little to the left of the middle line was rapidly made into the upper part of the abdomen, and meanwhile hypodermic injections of strychnine and brandy were given, and a cloth wrung out of boiling water applied to the precordium.

The right hand was inserted into the abdomen, and a flabby mass, supposed to be the heart, seized through the diaphragm, and energetically and rhythmically squeezed. In a short time the flabby mass suddenly became hard—like a cricket ball—in the hand, and firm, regular, but slow contraction commenced. After a little these firm contractions became tremulous and threatened to cease, but on squeezing, again became firm and regular; this routine was carried out several times, and at last a regular heart-beat and regular pulse were established. The patient began to strain and vomit, so that there was some difficulty in sewing up the abdominal wound. In about twenty minutes he was taken back to the ward, where a rectal saline injection was administered.

In the evening he suffered from considerable pain in the abdomen and chest, which was allayed by a hypodermic injection of morphine. He made a good recovery, and as it was deemed unwise to give him a further anaesthetic the injured finger was eventually amputated by means of strangulation, with a piece of indiarubber tubing.

Remarks.

1. The man's general vitality was probably considerably lowered from septic absorption.
2. The movement of lifting him from the stretcher on to the table appears to have been the deciding factor in the cardiac failure.
3. The anaesthetic was chiefly ether, the amount of chloroform being very small.
4. The subsequent pain was probably due to bruising of the diaphragm, and perhaps the heart.
5. I think the hypodermic injections of strychnine were of use once the heart's action was re-established, although obviously they could have been of no good whilst the circulation was stagnant.

My thanks are due to Dr. Garner and Mr. Stone, R.A.M.C., for efficient help at the time of the emergency. Dr. Manson was responsible for the subsequent treatment of the patient.

Reports of Societies.

TREATMENT OF SYPHILIS.

Di-ortho-amino-thio-benzene ("*Intramine*").

AT a meeting of the Dermatological Section of the Royal Society of Medicine on January 20th Mr. MCDONAGH gave an account of a new drug he had devised for the treatment of syphilis. He had, he said, found by experiment that salvarsan did not attack the syphilitic organisms directly, but became attached to the lipoid-globulin molecules of the serum, which, by the chemico-physical action of adsorption, killed the parasites. For this was necessary active oxygen, which was normally formed directly by peroxidases and indirectly by perhydridases. The arsenic in the salvarsan molecule, in the form of a hydroxide, acted as a peroxidase. Metals acted as peroxidases, and after experiments with aluminium and iron he had prepared drugs which acted better than arsenic and which were absolutely non-toxic. In early syphilis oxidation was more to the fore than reduction; the opposite was the case in late syphilis—therefore, he endeavoured to find out how the reducase system worked, and to make a drug which had the same action therein as aluminium, iron, and arsenic had in the oxidase system. He found that the perhydridase was a disulphide protein, and that sulphur (a non-metal) was the catalyst. Having prepared many sulphur compounds, he found that the di-ortho-amino-thio-benzene, to which he had applied the name "intramine," had the greatest therapeutic effect. It had proved to be in many respects more efficacious than salvarsan and to be absolutely non-toxic.

Mr. J. E. R. MCDONAGH and Dr. H. SPENCE showed three cases of syphilis treated by "intramine":

1. Chronic ulcerative glossitis of twenty-five years' standing, which had resisted treatment with salvarsan, mercury, and iodides, and healed in a fortnight after one intramuscular injection of intramine.
2. Gummatous ulceration of genitals in a congenital syphilitic (male), aged 28. The ulcers healed with one injection of intramine and the general condition was greatly improved.
3. Recurrent papulo-ulcerative syphilide in a man aged 42, which healed in a week with one injection of intramine.

THE PILTDOWN SKULL.

THE question whether the later-found Piltdown canine tooth belongs to the Piltdown skull was raised in a paper read by Mr. W. COURTNEY LYNE, L.D.S., before the Odontological Section of the Royal Society of Medicine on January 24th. The canine tooth was not found in the mandible, but some time later near the spot where the original discovery was made. There is no vacant socket in the fragmentary mandible into which to fit this later-found tooth. It appeared, however, so reasonable to suppose that a canine tooth projecting above the general tooth level and of anthropoid character had once belonged to the fragment, that it was very generally accepted as genuine. Mr. Lyne's dissent from this view is founded on a critical examination, by means of *x*-ray pictures, of the pulp cavities of the two molars (the first and second permanent molars) *in situ* and of the later-found canine tooth. In all teeth of limited growth, whether temporary or permanent, a progressive diminution in size of the pulp cavity as age advances is brought about by concentric calcification; this affects the size of the root canal as well as that of the coronal pulp cavity. *X*-ray pictures show rather small pulp cavities and root canals in the Piltdown molars, and in the canine a large pulp cavity and root canal, so large that, assuming it to be a permanent tooth, it could not have belonged to an individual of greater age than 17. Arguing from the closed sagittal suture and from the ground-down condition of the molars the age of the Piltdown skull had been put at about 30. The molars and the canine, in Mr. Lyne's opinion, are incompatible in the same jaw. The apical foramen of the later-found canine is widely open, perhaps because a portion of the root is missing, and Mr. Lyne suggests that if it be really fractured and incomplete, the necessary addition would either raise the tooth beyond all reason or lengthen the root into the jaw till it would lie in the bone of the mandibular fragment, where in fact there is no trace of a socket to receive it. If, however, the later-found canine be, as Mr. Lyne supposes, a temporary tooth, the open apex may be explained as the result of absorption. He argued that the very thin layer of enamel displayed, the loss of the tip of the tooth, the outwardly bent tendency of the root with apparent absorption beginning at the basal end of the root, along with the large size of the pulp, all pointed to a deciduous canine, and almost certainly a Primate one. The tooth is large; amongst Lemuridae in late Pleistocene times huge forms arose, for example, *Megaladepis insignis*, and it is thus quite conceivable that larger anthropoids than we have living now were in existence in late Pliocene or early Pleistocene times, and a somewhat large deciduous canine would not then be irrational.

In the discussion which followed, Dr. SMITH WOODWARD urged that it was far more probable that the remains belonged to one individual than that the cranial part, the mandible, and the canine tooth represented three absolutely new types, leaving their remains together in one small area; to which Mr. LYNE replied that he was only separating the canine tooth and so postulating two, not three, new types.

Professor KEITH said that because of the human shape of the glenoid cavity he had expected a large tooth, but not one so projecting as the later-found canine. The lower canine of anthropoids was faceted both by the upper canine and by the upper lateral; the later-found canine was faceted by the latter only. In the ape the canine was a cheek or side tooth; in man it belonged to the front series. The tooth might thus be an intermediate form and so compatible with the shape of the glenoid cavity. As showing that a large canine pulp cavity might be compatible with small molar pulp cavities he instanced the unexpected shapes of liver found in anthropoids. He thought the tooth belonged to the mandible.

Professor UNDERWOOD considered that Mr. Lyne had been very bold in coming to the conclusion that the tooth was that of a young individual by comparison of the pulp cavity with those of canine teeth of known age. He did not think the tooth temporary.

Professor ELLIOT SMITH explained that what he had said was that the age of the remains was about 30 when judged as modern man. It was probably actually younger. He had found it difficult, even in such recent skulls as those of ancient Egypt, to judge the age by closure of sutures or grinding down of teeth. There was often much grinding down in young skulls.

Mr. PYCRAFT pointed out that Mr. Lyne had made his comparison with microdont teeth, whereas the Piltdown teeth were macrodont, and should have been compared with macrodont teeth—for example, Melanesian.

Mr. HOPSON said that he had seen extreme grinding down in the temporary molars of a Neolithic child of 5 years of age, and thought that the slight tilting forward of the sockets of the third molar of the Piltdown mandible might be an indication of youth.

Mr. J. G. TURNER thought the slight forward tilt of the sockets of the third molar indicated a permanent condition of slight impaction of the tooth; he did not think it could be taken as a reliable guide to youth. In examining the grinding down of the teeth of old skulls, including ancient Egyptian, he had noted that the first permanent molar was rapidly ground flat, but that the second permanent molar was not worn at an equal rate, the tendency being to eat with the more forward teeth. The two molars (first and second permanent molars) of the Piltdown mandible were both worn flat, pointing to a considerably greater age than Mr. Lyne's 17 for the canine. The alveolar edges also of the Piltdown mandible were worn away. If this were truly an *ante-mortem* change it would only be due to a slow form of caries of the alveolar edge (pyorrhoea alveolaris), which would have taken a good many years to reach the stage found. He had examined the pulp cavities of large numbers of human teeth, but had only twice, in molars, found such large pulp cavities and root canals in teeth of the age of 30 or so as shown by Mr. Lyne in the later-found canine. He thought, however, as Mr. Pycraft had said, the comparison should be remade with macrodont peoples.

Mr. LYNE, in his reply, expressed the opinion that no good answer had been made to the incompatibility of the large size of the pulp cavity of the canine, especially of the lower third of the root, with the size of the molar pulp cavities.

Reviews.

DISEASES AND THE DUCTLESS GLANDS.

As everybody knows, the ductless and endocrine glands have received a vast amount of attention from physiologists, pathologists, and clinicians during the last two decades; the literature of the subject has become enormous. From the point of view of the experimental physiology and pathology of the subject, the massive handbook by Biedl contains most of what is known, and for the general reader the little book by Sir E. A. Schäfer, reviewed in the BRITISH MEDICAL JOURNAL of June 5th, 1915, p. 981, contains a satisfactory *précis* of our knowledge. From the clinical point of view, a full and very valuable account of the ductless glands was published in 1913 by Dr. FALTA of Vienna, and this has recently been translated by Dr. MEYERS.[1] The book is founded on Dr. Falta's own observations, made at various Viennese clinics. Its contents are divided into fourteen chapters. After a well-written introduction, in which the complexity and uncertainties in which the single and combined actions of the secretions of the ductless glands are involved are well set out, the rest of the book is given to clinical accounts of disturbances of each endocrine gland separately. The thyroid, parathyroid, thymus, pituitary, pineal, suprarenal, lymphatic, sexual, and pancreatic glands are all discussed from this point of view. Special chapters are given to pluriglandular diseases and to vegetative disturbances not directly dependent on disorder of the ductless glands, but yet the cause of dwarfism, infantilism, mongolism, and chondrodystrophy; while the last chapter goes thoroughly into the question of the different forms of obesity. At the end of the book 70 pages are devoted to references to the literature of the subject; throughout the text Dr. Falta makes very full use of the writings of others to illustrate his meaning. The volume contains countless points of interest and well-balanced discussions—for example, his analysis of the signs and symptoms of chlorosis leads the author to attribute that disease to an exhaustion of the ductless glands generally, brought about by abnormal or precipitate ovulation, and to suggest that the disease might be treated by a very cautious irradiation of the ovaries with x rays. The translator has done his work in a painstaking manner, although his rendering not infrequently sticks too closely to the German original. This may be illustrated by a sentence from the chapter on the diseases of the thymus gland: "*Stöhr* regards the origin of the thymus lymphocytes as due to a partition of the epithelial pictures" (p. 223). The translation has been brought up to date by editorial addenda. There are many misprints in the names of the authors quoted.

ANATOMY.

IN his massive textbook of *Applied Anatomy*[2] Professor G. G. DAVIS describes at great length the construction of the human body considered in relation to its functions, diseases, and injuries. The first edition came out five years ago; the third, now before us, preserves the characters of the first, with comparatively slight corrections and additions. For all its size, the book is not a systematic treatise on anatomy, but is an explanatory and utilitarian work for the medical student. Naturally enough, it deals mainly with the applications of anatomy to surgery; the redistributions of anatomical structures caused by fractures and dislocations are dealt with very thoroughly, and so are the special anatomical points that it is thought should be in the mind of the operating surgeon when he is at work. Many hundreds of excellent illustrations of dissections made to illuminate the points at issue are included, and, speaking generally, could hardly be improved upon. From the medical point of view the book would appear to be less complete. In the account of the lungs, for example, no mention is made of the differences on percussion and palpation normally met with when the two apices are compared—differences that first received a satisfactory explanation a few years ago at the hands of Fetterolf and Landis. In the account of hydrothorax (p. 191) no mention is made of the importance of the liver in determining the great frequency with which such effusions appear on the right side, a matter emphasized by Vaquez in 1913. The sternal angle of Louis, correctly named on p. 180, is called the angle of Ludwig on p. 200, with no note to explain that Ludwig is the German form of the name Ludovicus, which is in turn the Latin form of the French name Louis, and that the two angles are the same. From the medical point of view the book would gain if some transverse sections across the thorax were added to the excellent diagrams of frozen sections placed at the end of the volume; they would be most helpful to students seeking to understand the semeiology of diseases of the heart, lungs, aorta, and oesophagus. The book is clearly written, and contains numerous important references to the medical and anatomical literature. It contains a great deal of useful information; the only fault the medical student will find with it will lie, no doubt, in its length.

In the third edition Professor HILDEBRAND brings up to date his *Grundriss der Chirurgisch-Topographischen Anatomie*,[3] published first in 1893. The feature which gives the book a special value for English readers is the attention paid to *Leitungsanästhesie*. The new subject matter is particularly concerned with the questions of cranio-cerebral topography, the distribution of lymph vessels with special reference to the extension of malignant growths, and the position of the sensory nerves from the point of view of choosing the site of injection in producing local anaesthesia. The anatomy of the various regions of the body which are of special interest to the surgeon is first described, and at the end of each section a reference is made to the part which the anatomy of the region plays in surgery. To this is added an account of the region as it can be made out from an examination of the living subject, and finally the positions of the sensory nerves are described. It is somewhat surprising that in a book of this character and scope no mention should be made of the various sensory segmental areas, and that the work of Head and other British neurologists should be entirely ignored.

The third edition of Professor BUCHANAN'S *Manual of Anatomy*[4] contains a sound and short account (so far as any textbook of anatomy can be short) of systematic and practical anatomy and embryology. The second impression of this work was reviewed in the BRITISH MEDICAL JOURNAL of September 26th, 1914; it is sufficient to add to that review (which gave a very favourable account of Professor Buchanan's *Manual*) a note to the effect that the latest edition contains a new chapter on general embryology, and, in addition, a number of new illustrations. The old anatomical nomenclature is retained in despite of the Bâle synonyms, many of which are given in an appendix. This is a feature that should continue to commend the volume to medical students—a conservative class.

In Part I of *Die Anatomie des Menschen*[5] the author, Professor FRIEDRICH MERKEL, deals with the subjects of anatomical structure and general embryology. The fact that he completes his account of these subjects within 248 pages and that he includes no fewer than 251 illustrations in the text gives some idea of the scope of the book. The work is a textbook designed to supply the medical student with a succinct and clear account of the subjects which will form the groundwork for all his later studies. The special problems with which authors of such textbooks are confronted are those of selection and compression, for, owing to the rapid advance in knowledge of the various subjects of the medical curriculum,

[1] *The Ductless Glandular Diseases.* By W. Falta, Vienna. Translated and edited by M. K Meyers, M.D.; with a foreword by A. E Garrod, M.D.Oxon., F.R.C.P.Lond., F.R.S. Philadelphia and London: P. Blakiston's Son and Co. 1915. (Roy. 8vo, pp. 692; 101 figures. 7.00 dols.)

[2] *Applied Anatomy.* By G. G. Davis, M.D. Illustrated by E. B. Faber. Third edition. Philadelphia and London: J. B. Lippincott Co. 1915. (Sup. roy. 8vo, pp. 640; 631 figures. 24s. net.)

[3] *Grundriss der Chirurgisch-Topographischen Anatomie.* Von Professor O. Hildebrand. Dritte verbesserte und vermehrte Auflage. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1913. (Imp. 8vo, pp. 370; 194 figures 12s. 9d.)

[4] *Manual of Anatomy, Systematic and Practical, including Embryology.* By A. M. Buchanan, M.A., M.D., C.M., F.R.F.P.S.Glas. Third edition. University Series. London: Baillière, Tindall and Cox. 1915. (Demy 8vo, pp 1743; 675 figures. 21s. net.)

[5] *Die Anatomie des Menschen.* Von Professor Dr. F. Merkel. Part I. Allgemeine Gewebelehre Grundzüge der Entwicklungslehre. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1913. (Imp. 8vo, pp. 263; 251 figures. 8s.)

it is desirable to confine within certain limits the anatomical studies of the student. Professor Merkel has, we think, succeeded in the task which he set himself, thanks, no doubt, largely to the important German Handbooks and Atlases upon which he has been able to draw for his text and illustrations. An omission, which we are at a loss to understand, is that in the section dealing with the structure of the body, and which includes, by the way, an account of the blood and even of haemin crystals, there is no mention of the structure of a tooth. The book may be useful to teachers in this country faced with the same problems—namely, what to teach and what to omit.

The Intervertebral Foramina in Man,[6] by HAROLD SWANBERG, is, as its author states, a supplement to *The Intervertebral Foramen*, which was reviewed in these columns some time ago. The earlier book dealt with the structure and contents of the foramen in the cat, and therefore had not the interest or practical value of the present work. The description of the foramen is based on an examination by microscopical sections of the foramen between the seventh and eighth thoracic vertebrae in a male child aged 5 months. The specimen was decalcified and forty-nine serial sections were made in the sagittal plane. Photomicrographs of four of these are reproduced. The main features agree with those already observed in the cat. The chief points made are that the size of the foramina does not correspond with the size of the nerves; that while in the median part of the foramen there is a large amount of fat, in the lateral part the fat is replaced by fibrous tissue, and that among the contents of the foramina is a number of lymphatic nodes. The book is the outcome of a careful piece of work patiently and skilfully carried out, but the contribution to our knowledge is on the whole rather insignificant. This, however, is in no way due to the author, but rather to the subject.

The pamphlet entitled *Anatomie der Bauchspeicheldrüse*,[7] contains the account of the pancreas contributed by Dr. SOBOTTA to von Bardeleben's handbook on human anatomy. It contains a brief historical review, in which the growth of knowledge regarding the gland is traced from the date of Hippocrates to the time of the memorable discovery of the duct by Wirsung in 1642, and still later to that of the even more important discovery of the islands and centro-acinar cells made by Langerhans in 1869. There follows an account of the comparative anatomy and embryology, a description of the macroscopical and microscopical appearances of the gland and its ducts, with their topographical relations; and, finally, an account of the arrangement of its blood vessels and lymph vessels and of its nerves. A bibliography giving the titles of no fewer than 386 papers supplies the reader with the literature on the subject down to September, 1913. The volume is adequately illustrated.

THE CAECUM AND INTESTINAL TOXAEMIA.

METCHNIKOFF'S doctrine that the colon is a useless if not harmful prolongation of the alimentary canal finds a vigorous opponent in Dr. JOHN FLYNN of Sydney, who has written essays on the *Morphology and Physiology of the Caecum*.[8] He discusses first the comparative anatomy of certain Australian animals, pointing out that in the carnivorous dasyure or native cat the caecum is entirely absent and there is little or no distinction between the large and small intestines, whereas in the mixed feeding bandicoot there is a fairly well marked difference, the caecum being of medium size and simple; in the kaola or native bear, a purely vegetable feeder, it is long and complicated. He holds that this indicates that the caecum supplements the functions of the stomach in the digestion of certain kinds of food. He strengthens this anatomical argument by quoting the researches of Keith on starch digestion, which showed that in the lower part of the ileum no starch reaction was obtained, but it reappeared in the middle of the transverse colon, in consequence, Keith suggests, of the cellulose envelopes, which were too strong for the enzyme action of the upper portion of the alimentary canal, having yielded to the special digestion of the caecum. Dr. Flynn also quotes Keith's researches on the mechanism of the ileo-caecal valve, which tends to show that it controls the passage of the contents of the ileum into the caecum, and permits it only when intestinal digestion and absorption have been completed. The valve sphincter is governed by reflexes which start from the mucous lining of the caecum, but are abolished when an artificial opening is made in the caecum, so that diarrhoea ensues. Caecal digestion, it is suggested, is due to bacterial action. It is argued that the only agents which could produce intestinal toxaemia are the products of enzyme digestion or of bacterial digestion or exotoxins derived from intestinal bacteria. He contends that the toxic proteoses, in passing through the walls of the intestine, are hydrolyzed and rendered harmless, and that carbohydrate and fat derivatives are not capable of producing toxic symptoms. If the symptoms are due to the intestinal bacteria themselves it must, he argues, be through exotoxins, the products of their action upon the medium, or endotoxins formed within them and set free by their disintegration. Strasburger's estimate of the enormous numbers of dead bacteria in faeces points to their destruction in the bowel. As it is the function of the liver to render innocuous any poisons formed in the intestine, if toxaemia occurs it must be due to hepatic failure. He holds that not only is the nature of intestinal toxaemia vague, but also the mechanical factor upon which it is supposed to depend. He believes the relaxation of the abdominal muscles to be of far greater importance in producing constipation than such conditions as abnormal mobility of the caecum, kinking at the hepatic and splenic flexures, adhesions around the ascending colon, and abnormal mesenteries. While acknowledging the work of Sir Arbuthnot Lane, and the lasting and material benefit that may follow the removal of a permanently diseased colon, he protests against the doctrine that a man who has no colon is in a better state than one who possesses a healthy bowel, and "if Lane by a sort of intuition of genius can give a new lease of life to certain chronic invalids," his teaching "should not be applied on any occasion and on every frivolous pretext to all conditions of men and women in whom this vague condition of intestinal toxaemia may be supposed to reside."

VICHY.

THE bulky volume on the arthritic diathesis, by Drs. E. GAUTRELET and H. DE LALAUBIE, two of the editors of the *Revue des maladies de la nutrition*,[9] is the outcome of the collaboration of one of the oldest practitioners at Vichy with the head of the local laboratory for biological chemistry. They describe it as an attempt to co-ordinate the numerous papers published from time to time on the cure at Vichy, and to explain the doctrines developed by time and experience, and by which those who practise there are guided in their administration of the waters. These doctrines differ in certain respects from those usually taught in the schools of medicine, but it is desirable that those who send their patients for treatment at this great French watering-place should be aware of the principles which guide the practice of the physicians to whom their patients are entrusted. The authors regard arthritism as depending upon hyperacidity and having a histological basis in the thickening of the cellular septa which interferes with, and more or less arrests, the osmotic exchanges essential to life. About a quarter of the book is occupied by a retrospect of the ancient and modern theories of gout and allied diseases, and about half is devoted to a description of the clinical conditions more or less closely related to the gouty diathesis; the concluding portion of the book deals with the waters of Vichy and their method of employment, internal and external, and all the various adjuncts of treatment employed there. As there are few regions of the body unaffected by the

[6] *The Intervertebral Foramina in Man.* By H. Swanberg. With an Introductory Note by Professor H. E Santee. Chicago: H. D. Ulmer and Co. 1915. (Post 8vo, pp. 95; 16 plates. 1.75 dols.)

[7] *Anatomie der Bauchspeicheldrüse (Pankreas).* Von Dr. J. Sobotta. Jena: G. Fischer. 1914. (Roy. 8vo, pp 62; 21 figures. Mk.3.)

[8] *Reflections on the Morphology and Physiology of the Caecum, with Special Reference to Intestinal Toxaemia.* By John Flynn, B.Sc., M.D., M.S.Irel., Surgeon to the Lewisham Hospital; formerly Demonstrator of Anatomy, Sydney Medical School. (Printed for private circulation.)

[9] *L'Arthritisme-diathèse à Vichy: Physiologie pathologique et thérapeutique physiologique.* (The Arthritic Diathesis at Vichy.) By E. Gautrelet and H. de Lalaubie. Paris: A. Maloine. 1913. (Roy. 8vo, pp. 930. 10 fr.)

disturbances of nutrition which may be classed as gouty it may easily be understood that the subject is large enough to excuse a big book. All the more to be regretted is it that there is no index and only a meagre table of contents.

NOTES ON BOOKS.

WE have read with much interest the philosophical poem whose existence its author, the late Dr. B. G. MORISON,[1] revealed to his wife only the day before he died. It takes the form of a dialogue between man and the spirit of life, and inculcates a serene and lofty confidence that, in despite of all transient and seeming triumphs of wrong, suffering, and death, all is or shall be well. Life is, for "the greatest and the least" alike, in essence indestructible, and though "savage ruthless force and subtle ill" may find "allotted meed" and pursue awhile "a favoured hurtful course," yet

> The hour approaches when, to newer need
> Unequal found, their baneful sway shall cease;
> E'en now does victim Right, striving succeed,
> And win from their undoing its release.

In addition to the title poem, some alternative stanzas, and a couple of short lyrics, the volume contains an interesting introductory note, "The Physician as Poet," a "Memoir," and two portraits, thus completing its claim to rank as a worthy memorial of an attractive and gifted personality. (An obituary notice of Dr. Morison appeared in the JOURNAL of February 6th, 1915, page 274.)

Dr. W. H. B. STODDART'S Morison Lectures on *The New Psychiatry*, delivered at the Royal College of Physicians of Edinburgh in March, 1915, have already been noted in detail in the BRITISH MEDICAL JOURNAL. They have now been republished in book form.[2] They form a brief introduction to the principles and practice of psycho-analysis.

Dr. STEVENS'S manual of medicine,[3] now in its tenth edition, was first published in 1892. It is a book prepared especially for students, and is redolent of suggestions of the midnight oil rather than of the bedside. In other words it is a comprehensive and workman-like textbook for the examinee, brief and clearly written, stripped of superfluous matter, uninteresting to the practitioner of medicine for the reasons that commend it to the medical student. Considerable alterations and additions have been made in the present edition to bring it up to date. So well-established an elementary textbook of medicine as this can stand on its merits, and is not in need of further commendation.

Under the title of *The Infant: Nutrition and Management*,[4] Dr. ERIC PRITCHARD publishes a collection of papers on various points connected with infant welfare. The book is brought out at a happy time, since much attention is drawn just now to the need of preserving infant life. Dr. Pritchard's hints with regard to the early management of lactation are full of sound common sense, as, indeed, is his advice on the regularity and daily management of the child's functions. We heartily agree with Dr. Pritchard when he insists on natural processes being allowed fair play, and with him we deprecate the early administration of castor oil or artificial feeding in the first forty-eight hours of existence as usurping and unwarrantably interfering with the effects colostrum on the one hand and meconium on the other are designed to have. Dr. Pritchard is inclined to think that many bottle-fed babies are apt to be overfed rather than underfed. It is suggested that the numerous garments the babies of poor parents usually wear are responsible to some extent for the underfeeding of some infants. The child who is overburdened with clothes cannot be vigorous in its movements nor the action of its skin healthy, and its appetite is therefore poor.

Dr. D. M. MACDONALD'S small volume on *Practical Prescribing and Treatment in the Diseases of Infants and Children*[5] consists of short and concise paragraphs arranged in dictionary form. We only fear lest a book such as this may tend to make some busy young practitioners trust to obtaining knowledge in too concentrated a form. We are glad to see that regularity in the daily habits of children is insisted on and that medicines for constipation, though various good formulae are given, are deprecated. The notes on diseases of the eye and the tuberculous child are practical, and the alterations in the recent edition of the *British Pharmacopoeia* are clearly presented in the last chapter.

An interesting record of the research work carried out during 1914 at the Research Laboratory of Parke, Davis and Co. at Detroit is furnished by the republication, in book form,[6] of more than twenty papers by various authors. These papers originally appeared for the most part in different American journals. They deal mainly with bacteriological subjects; a few are concerned with pharmacy. The volume contains evidence of much useful work, and does the greatest credit to the long-sighted wisdom of the firm that has paid for the expenses of the researches and of their publication in so readily accessible a form.

[1] *Life: A Poem.* By B. G. Morison, M.D. With a preface and biography of the author by an Editor. London: Baillière, Tindall, and Cox. 1915. (Demy 8vo, pp. 95; 2 plates. 3s. 6d. net.)

[2] *The New Psychiatry.* By W. H. B. Stoddart, M.D., F.R.C.P. London: Baillière, Tindall, and Cox. 1915. (Demy 8vo, pp. 70. 3s. 6d. net.)

[3] *Manual of the Practice of Medicine, prepared especially for Students* By A. A. Stevens, A.M., M.D. Tenth edition. Philadelphia and London: W. B. Saunders Co. 1915 (Cr. 8vo, pp. 629. 12s. 6d. net.)

[4] *The Infant: Nutrition and Management.* By E. Pritchard, M.A., M.D.Oxon., M.R.C.P.Lond. London: E. Arnold, 1914. (Crown 8vo, pp. 271. 3s. 6d. net.)

[5] *Practical Prescribing and Treatment in the Diseases of Infants and Children.* By D. M. MacDonald, M.D., F.R.C.P.E. Oxford Medical Publications. London: H. Frowde, and Hodder and Stoughton. 1915. (Pott 8vo, pp. 199. 5s. net.)

[6] *Collected Papers from the Research Laboratory of Parke, Davis and Co., Detroit, Michigan.* Reprints—Vol. 3, 1915. Director, Dr. E. M. Houghton. (Med. 8vo, pp. 345.)

THE NOTIFICATION OF MEASLES.

THE Order with regard to the "notification and treatment of measles and German measles," which came into force on January 1st, 1916, imposes a somewhat different duty as regards notification from that imposed by the Infectious Disease Notification Act, 1889. That Act provides as follows:

> Where an inmate of any building used for human habitation . . . is suffering from any infectious disease to which the Act applies then, unless such building is a hospital in which persons suffering from an infectious disease are received . . . the head of the family to which such inmate belongs, and in his default the nearest relatives of the patient present in the building or in attendance on the patient, and in default of such relatives every person in charge of or in attendance on the patient, and in default of any such person the occupier of the building shall, as soon as he becomes aware that the patient is suffering from an infectious disease to which the Act applies, send notice thereof to the medical officer of health of the district.
>
> Every medical practitioner attending on or called in to visit the patient shall, on becoming aware that the patient is suffering from an infectious disease to which the Act applies, send to the medical officer of health for the district a certificate. . . .

Under the provisions of the Infectious Disease (Notification) Act, therefore, two notifications, the one from the person responsible for the care of the patient and the other from the attendant doctor, are receivable by the medical officer of health, and the Act provides that the local authority shall pay to

> every medical practitioner for each certificate duly sent by him in accordance with the Act a fee of 2s. 6d. if the case occur in his private practice, and of 1s. if it occurs in his practice as medical officer of any public body or institution.

It would, perhaps, be too much to say that the provision in the Act with regard to notification by the head of the family is a dead letter, but we believe we are correct in stating that in practice the authorities very seldom take steps to enforce it.

If now we compare the provisions of the Notification Act (1889) and of the General Order of December 13th, 1910, on the one hand, with the regulations as to measles and German measles, we find the position somewhat different.

The measles regulations provide as follows:

> (Article V.) Every parent or guardian or other person, as soon as he becomes aware of, or has reasonable grounds for supposing that any person in his charge is suffering from measles or German measles, shall, unless the case has already been notified by a medical practitioner, forthwith notify the case to the medical officer of health for the district.
>
> (Article VI.) Every medical practitioner, as soon as he becomes aware that any person upon whom he is in professional attendance is suffering from measles or German measles, shall forthwith make and sign a notification . . . and shall transmit the notification to the medical officer of health for the district.

Provided that a medical practitioner shall not be required to notify a case of measles or German measles . . . and shall not be paid a fee for so doing

(*a*) If he has reasonable grounds for supposing that the case has already been notified under these regulations;

(*b*) If the case is notifiable or has been notified by a medical practitioner under the Infectious Disease (Notification) Act, 1889, Section 55 of the Public Health (London) Act, 1891, or under the provisions of any local Act or order made thereunder;

(*c*) If a case of the disease which he is attending, whether measles or German measles, has to his knowledge occurred in the same household or institution, and been notified within the period of two months immediately preceding the date on which he first becomes aware of the disease in the case he is attending; or

(*d*) If the case is being treated in a hospital for infectious diseases.

Article VIII provides for the payment of fees to the medical practitioner notifying a case under the regulations—2s. 6d. in respect of a private practice case, and 1s. if the case occurs in the practitioner's practice as medical officer of any public body or institution.

It will therefore be seen, on comparing the respective provisions of the Infectious Disease (Notification) Act and Measles Regulations which we have quoted, that whilst the Act imposes upon every medical practitioner in attendance upon a case, say, of scarlet fever, the duty of notifying the medical officer of health whether the case has already been notified or not, the measles regulations do not require a medical practitioner attending a case of measles to notify the medical officer of health "if he has reasonable grounds for supposing that the case has already been notified." The Local Government Board has stated that it is advised that if more than one medical practitioner is attending on or called in to visit a patient suffering from, say, scarlet fever, each practitioner is bound, under the Infectious Disease (Notification) Act, to send a certificate, and is entitled to the prescribed fee of 2s. 6d. or 1s., as the case may be, for such notification. On the other hand, a doctor called in to attend a case of measles upon which another doctor has previously been in attendance would be under no duty to notify if he had reasonable grounds for supposing that the case had already been notified; and, indeed, there being no duty upon him to notify the case, it would seem that if he nevertheless notified the medical officer he would be entitled to no fee for such notification, and the same result follows if a doctor has reasonable grounds for supposing that a case has already been notified by the patient's parent or guardian.

The position is perhaps best understood by taking a concrete case. Suppose, for instance, a woman writes to the M.O.H. that she suspects that her child is suffering from measles, and that the M.O.H. visits the house and finds that the child is suffering from measles, and in that way receives a notification of the case. Later, the woman calls in a medical man, but says nothing to him about the visit of the M.O.H.; he diagnoses the case and notifies the M.O.H. accordingly. The doctor's position is clear. He had no reasonable grounds for supposing that the case had already been notified and was therefore under a duty to notify. He is entitled to receive his fee. Even though the M.O.H. was himself also engaged in private practice, he would not appear to be entitled to any fee because the duty he performed was incidental to his appointment as M.O.H. and not otherwise.

Again, a doctor is called in to a case of measles; there is something which should show that another doctor has been previously in attendance on the case; that would, unless he were told that the doctor previously in attendance had not in fact notified the case, no doubt be held to relieve him of the duty of notifying, and, if he did notify, would disentitle him from receiving a fee.

In reading the two illustrations we have given it should be borne in mind that "notification" means "notification after diagnosis," and therefore a mere statement of suspicion is not a notification.

This distinction between the notification under the Act and that under the measles regulations is, no doubt, designedly made with a view to economy, but we cannot help feeling that it is one which may very well defeat the whole purpose of the regulations, which were made in order to enable the authorities to obtain control over two infectious diseases which were not previously notifiable.

THE DUTIES OF MEDICAL PRACTITIONERS IN CASES OF CRIMINAL ABORTION.

THE question as to how far a medical man, who obtains in his professional capacity knowledge of the commission of a criminal offence, is under a duty as a citizen to give information to the police authorities and so set the criminal law in motion, is one which has great interest for the medical profession.

It is manifest that as a standing rule applicable to the vast majority of cases it is of the very highest importance that professional confidence should be respected and held inviolate. Probably the case of most frequent occurrence is that of the medical man called in to attend upon a woman upon whom he comes to the conclusion an illegal operation has been performed, and in this case, at any rate, it is now safe to say that the doctor is under no obligation to, and indeed should not, divulge the information which he has obtained in his professional capacity.

In order to explain how the point has now arisen we must go back to 1896, when the late Lord Brampton (better known as Mr. Justice Hawkins), in charging a grand jury, said:

I doubt very much whether a doctor called in to assist a woman, not in procuring an abortion, for that in itself is a crime, but for the purpose of attending her and giving her medical advice, could be justified in reporting the facts to the Public Prosecutor. Such action would be a monstrous cruelty. . . . There might be cases when it is the obvious duty of a medical man to speak out, and it would be a monstrous thing for a medical man to screen a person going to him with a wound which it might be supposed had been inflicted in the course of a deadly struggle.

Lord Brampton's remarks were brought to the notice of the Royal College of Physicians of London, and in the result it obtained the joint legal opinion of Sir Edward Clarke and Mr. Horace Avory; the latter was then in practice at the junior Bar, but has since been raised to the Bench. They advised that a medical practitioner was not liable to be indicted for misprision of felony (an offence which is practically obsolete) merely because he does not give information in a case where he suspects that criminal abortion has been practised. There the matter rested until the close of 1914, when at the Birmingham Assizes in December Mr. Justice Avory had to deal with a case of an alleged illegal operation upon a woman on whom three successive doctors had been in attendance. None of these doctors had given information to the police, and, in consequence, there was no evidence upon which a jury could convict the prisoner who was charged with having performed the illegal operation. In charging the grand jury, the judge made the following observations:

Under circumstances like those in the present case, I cannot doubt that it is the duty of the medical man to communicate with the police or with the authorities in order that one or other of those steps may be taken for the purpose of assisting in the administration of justice. No one would wish to see disturbed the confidential relation which exists, and which must exist between the medical man and his patient, in order that the medical man may properly discharge his duty towards his patient, but there are cases, and it appears to me that this is one, where the desire to preserve that confidence must be subordinated to the duty which is cast upon every good citizen to assist in the investigation of a serious crime such as is here imputed to this woman. In consequence of no information having been given, it appears to me that there is no evidence whatever upon which this woman can properly be put upon her trial.

I have been moved to make these observations because it has been brought to my notice that an opinion to which I was a party some twenty years ago, when I was at the Bar, has been either misunderstood or misrepresented in a textbook of medical ethics, and I am anxious to remove any such misunderstanding if it exists. It may be the moral duty of the medical man, even in cases where the patient is not dying, or not likely to recover, to communicate with the authorities when he sees good reason to believe that a criminal offence has been committed. However that may be, I cannot doubt that in such a case as the present, where the woman is, in the opinion of the medical man, likely to die, and, therefore, her evidence likely to be lost, that it is his duty; and some one of these gentlemen ought to have done it in this case.

Mr. Justice Avory was therefore insisting that, professional secrecy notwithstanding, medical men are under the same moral duty as other citizens of the State in all cases in which they become aware of the commission of a criminal offence, to give information to the authorities.

In this, as we have seen, he differed from the late Lord Brampton.

These remarks were brought to the attention of the Council of the British Medical Association, and, after full consideration of the matter in consultation with the solicitor to the Association, a deputation was appointed to confer with the Lord Chief Justice on the question raised. This deputation was received by the Lord Chief Justice on May 3rd, 1915, and the Attorney-General and Public Prosecutor were also present. It was then ascertained:

(*a*) That it is desired by the authorities that information should be given to them by medical men in attendance upon a woman suffering from the effects of abortion brought about by artificial intervention.

(*b*) That the circumstances under which it was desired that this communication should be made were the subject of the following three limitations:

(1) That the medical man was of opinion either from his examination of the patient and/or from some communication that she may have made to him that abortion had been attempted or had been procured by artificial intervention.

(2) That he was of opinion either from his observations of and/or from a communication made to him by his patient that such artificial intervention had been attempted by some third party other than the patient herself, and

(3) That the medical man was of opinion that his patient, due to such artificial intervention, was likely to die, and that there was no hope of her ultimate recovery.

Upon this the Council made the following observations in its report to the Annual Representative Meeting, 1915:

> The Council understands that whereas Solicitors and Barristers have an absolute privilege of protection in regard to statements made to them in their professional capacity involving matters of criminal import or otherwise, no other class of persons is accorded such legal protection by State authority or Act of Parliament, although in the case of ministers of religion such protection is universally observed and recognized by custom in the Courts.
>
> There is, however, no such universally recognized protection attaching to medical men in respect of statements made to them by a patient; in fact there is a considerable conflict of authority upon the subject.
>
> The Council is advised that no obligation rests upon a medical practitioner to disclose the confidences of his patient without the patient's consent, and suggests that if the State desires to set up such an obligation it should at the very least preface such an endeavour by affording to the practitioner protection from any legal consequences that may result from his action. Without any desire to claim the right to refuse to make such disclosures in obedience to the order of a Court of Justice, the Council, after hearing the report of the Deputation received by the Lord Chief Justice on May 3rd, 1915, has decided to adhere to the following Resolutions which it passed on January 27th, 1915:
>
> That the Council is of opinion that a medical practitioner should not under any circumstances disclose voluntarily, without the patient's consent, information which he has obtained from that patient in the exercise of his professional duties.
>
> That the Council is advised that the State has no right to claim that an obligation rests upon a medical practitioner to disclose voluntarily information which he has obtained in the exercise of his professional duties.

The matter has also been taken up by the Royal College of Physicians of London. The College passed certain resolutions last July. It was subsequently considered advisable to obtain an opinion from Mr. R. D. Muir on the legal advice appended to the resolutions, which were finally adopted in the following form after they had been submitted to the Public Prosecutor for his approval. The resolutions of the College and the advice it has received are in the following terms:

Resolutions concerning the Duties of Medical Practitioners in Relation to Cases of Criminal Abortion, adopted by the Royal College of Physicians of London on January 27th, 1916.

The College is of opinion—

1. That a moral obligation rests upon every medical practitioner to respect the confidence of his patient; and that without her consent he is not justified in disclosing information obtained in the course of his professional attendance on her.

2. That every medical practitioner who is convinced that criminal abortion has been practised on his patient should urge her, especially when she is likely to die, to make a statement which may be taken as evidence against the person who has performed the operation, provided always that her chances of recovery are not thereby prejudiced.

3. That in the event of her refusal to make such a statement, he is under no legal obligation (so the College is advised) to take further action, but he should continue to attend the patient to the best of his ability.

4. That before taking any action which may lead to legal proceedings, a medical practitioner will be wise to obtain the best medical and legal advice available, both to ensure that the patient's statement may have value as legal evidence, and to safeguard his own interests, since in the present state of the law there is no certainty that he will be protected against subsequent litigation.

5. That if the patient should die, he should refuse to give a certificate of the cause of death, and should communicate with the coroner.

The College has been advised to the following effect:

1. That the medical practitioner is under no legal obligation either to urge the patient to make a statement, or, if she refuses to do so, to take any further action.

2. That when a patient who is dangerously ill consents to give evidence, her statement may be taken in one of the following ways:

(*a*) A magistrate may visit her to receive her deposition on oath or affirmation. Even if criminal proceedings have not already been instituted, her deposition will be admissible in evidence in the event of her death, provided that reasonable written notice of the intention to take her statement was served on the accused person, and he or his legal adviser had full opportunity of cross-examining.

(*b*) If the patient has an unqualified belief that she will shortly die, and only in these circumstances, her dying declaration will be admissible. Such a declaration may be made to the medical practitioner, or to any other person. It need not be in writing, and if reduced into writing it need not be signed by the patient nor witnessed by any other person, though it is desirable that both should be done, or that, if the patient is unable to sign, she should make her mark. If possible, the declaration should be in the actual words of the patient, and if questions are put, the questions and answers should both be given, but this is not essential. If the declaration cannot there and then be reduced into writing, it is desirable that the person to whom it is made should make a complete note of it as soon as possible.

The position may therefore be summarized shortly:

1. Any one who, knowing of the commission of a criminal offence, attempts to conceal his knowledge from the authorities may himself be guilty of the offence of misprision of felony—an offence, however, which is practically obsolete.
2. An ordinary citizen, not being a barrister or solicitor, is under a moral duty to inform the authorities when he has knowledge of the commission of a criminal offence.
3. A medical man, however, is under no such moral duty where his knowledge is obtained in his professional capacity, so far, at any rate, as the offence of abortion is concerned.

THE United States Census Bureau estimates that the death-rate for 1914 in the registration areas of the country was 13.6 per 1,000, being the lowest rate recorded. The returns cover about 67 per cent. of the population, and are considered trustworthy. The death-rate of New York City had fallen 25.8 per cent., that of San Francisco 23.6 per cent., and that of other large cities showed a considerable lowering of mortality.

THE annual report of the Glasgow Eye Infirmary states that the directors have been confronted with two difficulties—the increase in the cost of supplies and the depletion of the medical staff. In addition to the general increase in the price of food, there has been difficulty in respect of drugs. The drugs indispensable in ophthalmic surgery, the report states, are mostly of foreign origin, and are now only obtainable at greatly enhanced prices, which range from five to twenty times the prices existing before the war. The charges under this heading would have been considerably heavier but for the fact that drugs are not now supplied by the infirmary to patients insured under the National Health Insurance Act.

British Medical Journal.

SATURDAY, FEBRUARY 5TH, 1916.

MEDICAL RECRUITING.

At a time like this the main interest of the work of the Association must be centred in the endeavour of the profession to further the national interests in the war. It is therefore not to be wondered that the report of the Central Medical War Committee claimed much attention from the meeting of the Council of the British Medical Association on January 26th. That the report of the Committee was adopted without amendment, save such verbal alterations as were proposed by the Chairman of the Committee himself, after it had run the gauntlet of the searching criticism of the members of the Council, speaks well for its work. The Committee, it will be remembered, was appointed at the instance of the Annual Representative Meeting last July. The representatives of the British Medical Association were the four *ex officio* members (the President, the Chairman of Representative Meetings, the Chairman of Council, and the Treasurer), four other members elected by the Council, four members elected by the Representative Meeting from among its own body, and four other persons also chosen by the Representative Body—namely, Sir William Osler, Sir T. Clifford Allbutt, the Master of Christ's College, Cambridge, and Dr. T. Jenner Verrall. The Committee had power to co-opt six other members representative of universities, colleges, and other medical bodies, and under this power has chosen the President of the Royal College of Physicians, London; the Past-President of the Royal College of Surgeons, London; the Dean of St. Bartholomew's Medical School, the Secretary of the London Panel Committee, the Dean of the Faculty of Edinburgh University, who is also a member of the Scottish Medical Emergency Committee; and the Irish Medical Secretary of the Association, who is also the Secretary of the Irish Medical War Committee. Representatives of the Insurance Commissioners and of the Local Government Board attend the meetings without vote. The Committee has met eleven times and the Executive Subcommittee twenty-three times. Government departments have been interviewed—some of them many times, and the roll shows that the members have been most assiduous in their attendance.

The status of the Committee, which met first on July 30th, had gradually been strengthened; and, as will have been gathered from Mr. Tennant's statements in the House of Commons on January 12th and 20th,[1] it may now be said to be an advisory committee to the Director-General on matters which affect the relation between the medical demands of the army and the medical requirements of the civil population, and to act also as an active recruiting agency to secure medical officers for the R.A.M.C.

Lord Derby definitely turned over the recruiting of doctors in England and Wales to the Central Medical War Committee, and in Scotland to the Scottish Medical Emergency Committee; the Army Council subsequently announced that no qualified medical practitioner willing to accept, if offered, a commission in the Royal Army Medical Corps should be accepted as an ordinary combatant, and that the certificate of enrolment issued by the committees would be accepted as conclusive evidence on this head by all recruiting officers. Medical practitioners so enrolled, the Army Council stated, "will not be posted to a combatant unit, and will await the instructions" of the Central Medical War Committee, or the Scottish Medical Emergency War Committee, as the case may be. The Committee, acting in conjunction with the Scottish Committee, set itself to secure a large number of additional medical officers by the middle of January, and though the full tale was not attained, the Director-General stated that "on the whole he was not dissatisfied with the result." The duty of the Committee is not only to secure new medical officers for the new armies, but also new men to take the place of those who have been invalided, or who—their number is not, we believe, at present large—having served one year, for divers reasons have to return to civil life. The effort must be continued, for the demand cannot be expected to diminish. The Central Medical War Committee commended in the warmest terms the work of the local Medical War Committees. It was able to report that out of 172 areas in England and Wales all have committees working save four (West Bromwich, Dover, Lewisham, and Lewes and East Grinstead). The report stated that it was impossible to speak too highly of the arduous work and self-sacrifice devoted to the organization and conduct of many of these committees, and the Central Committee especially thanked those who, by acting as chairmen and honorary secretaries, had enabled it to establish a network of committees which have carried on the recruiting work for officers for the R.A.M.C., and have enabled some thousands of medical men to join the services, knowing that their interests during their absence will, so far as possible, be protected.

The work of the local committees is growing in importance: they must act as recruiting agencies; they must know all the men of military age, their position, the possibility of sparing them from civil work, how to safeguard their practices, and in particular must promptly advise the Central Committee whether or not a certain commission applied for may or may not be granted. Recently the Director-General has promised to put all the local committees in touch with the Deputy Director in each home command, so that changes in mobilization may be known and arranged for.

The Committee presses for the immediate enrolment of every medical man of military age—that is, of 45 years and under. Every man should enrol, irrespective of whether he thinks he can or should go or not. He is asked to put his case before the Committee for consideration and decision. Only by a complete enrolment can the Committee know the general position and do justice as between man and man and district and district. Not every enrolled man will be called upon to go, and no man will be called upon without consultation with his local committee.

Much good work has been done by local committees. Some districts have been particularly difficult to deal with; this applies to London, for instance, where the population is of a floating character and patients are not attached by close ties to their doctors, as they are in country districts. The problem still calls for much attention, and as the difficulty of getting men increases it may be necessary to consider some scheme for redistribution of practitioners.

[1] British Medical Journal, January 22nd, p. 140, and January 29th, p. 178.

The Committee had called the attention of the President of the General Medical Council to some few instances in which men had taken advantage of the absence of their colleagues. The President intimated in his address at the November session that the Council would take a very serious view of any case brought before it in which such unpatriotic and unprofessional conduct was proved. The Committee had also, through the lay press, appealed to the public to consider the interests of their usual doctor when he is away on service, and to tell whomsoever they may go to the name of the absentee doctor who was their usual attendant.

A letter had been sent to the medical committees of all civil hospitals asking them to consider the minimum requirement for carrying on the hospitals during the war, and information had been given as to measures taken by various hospitals in coping with shortage of junior residents.

Much tribulation had come to the Committee owing to grievances felt with regard to certain War Office regulations on points of age and physical fitness for commissions for men on home service. At the outset of the Committee's work recruiting was hindered owing to the many men of military age and fit for general service—that is to say, either at home or abroad—holding commissions and being employed on home service only. The Committee desired the Director-General to instruct "D.D.M.S.'s and A.D.M.S.'s not to retain or accept for work in military hospitals at home medical practitioners of military age who were physically fit, but to encourage such practitioners to accept commissions in the R.A.M.C."; the same was to apply to Red Cross and Voluntary Aid Detachment hospitals. The Director-General notified that "no man under 45 years of age will be employed unless he undertakes general service obligation for a year, and is found to be physically fit for duty at home and abroad." It will be noted that the army order differs from the request of the Committee. It excludes not only fit men under 45 from home service but also unfit men. The Committee therefore again approached the War Office on the matter, for it was felt that hardship would be done to men who would have to surrender their commissions under the order, and that men useful for home work would be refused commissions. The War Office replied that the decision was come to on departmental grounds. Commissions, it was pointed out, carried obligations to both sides, and the Treasury would not entertain these obligations towards men known to suffer physical disability. It was, on the other hand, stated that these men would be taken on for home service as civil medical practitioners. The matter was discussed at the meeting of the Council at some length, but a motion directing the Committee to seek a further interview with the Director-General thereon was lost.

The need for the economical use of medical officers has been a constant source of comment: it was dealt with in a lengthy section of the report, and it was debated in earnest by the Council. The Committee has had many interviews on the subject with the Director-General, and reported that while it believed that individual instances of wastage may be proved, it has been convinced by its communications with the Director-General that on the whole these complaints are due to ignorance of the larger questions of army medical administration. Reserves must be maintained; men who may seem to be idle are nevertheless indispensable. The present siege warfare makes many men in all branches of the army apparently idle and useless, but they must be there on the spot, for who knows when the siege may give place to field operations? "The Committee feels that, after all, the responsibility must rest upon the military authorities, who would be blamed if at any given time it were found that there were not sufficient medical officers, and the Committee does not consider that it is wise or patriotic to question the decision of the military authorities, arrived at, as the Committee has good reason to know, after full consideration of the criticisms that have been offered."

SCIENCE, EDUCATION, AND GOVERNMENT.

A VOLUNTARY committee of men of science has issued a memorandum which is a serious indictment of the attitude of public opinion, but especially of political opinion in this country, towards the study of science and its application to practical affairs, including military administration. It would, perhaps, be more correctly described as an appeal to the public and an indictment of politicians, although it points out that the ignorance of science displayed by the highest ministers of the state, by almost all public departments of the civil service, and almost universally in the House of Commons, is shared by the general public, including a large proportion of those engaged in industrial and commercial enterprise. Important exceptions to the rule are recognized in the navy and the medical service of the army. "In both these services," the memorandum observes, "success has been achieved by men who, while in no way inferior in courage, devotion, and self-sacrifice to their brethren elsewhere, have received a scientific training." It is pointed out that it is admitted on all sides that this country has suffered checks since the war began, due directly as well as indirectly to a lack of knowledge on the part of the legislators and of administrative officials of "science" or "physical science," meaning thereby the ascertained facts and principles of mechanics, chemistry, physics, biology, geography, and geology. As a curious instance of ignorance, the case is quoted of the public statement by a member of the Government, unchallenged when made, that his colleagues should be excused for not having prevented the exportation of lard to Germany, since it had only recently been discovered that glycerine, used in the manufacture of explosives, could be obtained from lard. Yet the chemistry of soapmaking and the accompanying production of glycerine is very ancient history. The time certainly seems to have come when officials of all kinds, no less than members of Parliament, should be as much ashamed of ignorance of the commonplaces of science as they would now be if found guilty of bad spelling or arithmetic.

The contention that our success now and in the difficult time of reorganization after the war must depend largely on the possession by the leaders and administrators of the country of adequate knowledge of scientific method and facts and of the habit of promptly applying known means to known ends is a statement so obvious that the fact that it should be thought necessary to make it is in itself proof of our backward state. It is, indeed, discouraging and somewhat pitiable to watch the operation of a mind of great natural endowments, tempered by the highest education the public schools and the old universities afford, attempting to handle a subject demanding a knowledge of the principles, facts, and methods of science. One can imagine the contempt which would have been felt for such a system of education by Greeks of the great period.

For a remedy the memorandum looks to a reform in the system of higher education both in the universities and in the schools which prepare boys for them. The one and effective way of giving the nation both better educated civil servants and a true and reasonable appreciation of science in all classes is, the committee considers, in the hands of the legislature, and of it alone. It must direct the Civil Service Commissioners and the Army Examination Board to give a preponderating, or at least an equal, share of marks in the competitive examinations to natural science subjects, proper safeguards being taken to make them tests of genuine scientific education, and not an incentive to mere cram. Natural science has been introduced as an optional subject for the Civil Service examinations, but only one-fourth of the candidates offer themselves for it; the reason is that it does not pay, since in Latin and Greek alone, including ancient history, they can obtain 3,200 marks, while for science the maximum is 2,400, and can only be obtained by a candidate who takes four distinct branches of science. Science has only been made compulsory at Woolwich within the last few years; for Sandhurst it still remains optional, and this college is probably the only military institution in Europe where science is not included in the curriculum. A result of this system of education, not merely upon the candidates but upon all the great schools of the old universities which necessarily, as things are at present arranged, work with them in aim and interest, is neglect of the study of the natural sciences.

The memorandum concludes by an appeal to the electorates to insist that candidates for their suffrages should pledge themselves to aid by legislation in bringing about a drastic reform in the scheme of examination for all the public services in the sense indicated. The memorandum is signed by a large number of men of science, mostly the seniors. The list includes the names of Sir T. Clifford Allbutt, Sir William Osler, Sir Henry Morris, Sir John Williams, Sir Ronald Ross, Professor Leonard Hill, Professor E. H. Starling, Dr. A. E. Shipley (Cambridge), Professor G. C. Bourne (Oxford), Professor J. C. Ewart (Edinburgh), Professor S. J. Hickson (Manchester), and Professor J. A. Thomson (Aberdeen), so that in biology alone it is fairly representative of all parts of the country, but though it contains the names of two peers—the Earl of Berkeley and Lord Rayleigh—it does not contain the name of a single member of the House of Commons.

Side by side with this appeal in the newspapers of Wednesday appeared a report from the Committee on Retrenchment in Public Expenditure, recommending the closure of the national museums in the capital of the empire in order to effect a saving estimated at £50,000 a year. The main argument, however, seems to be that the closure will liberate a certain number of policemen, caretakers, and cleaners, who could be employed in other Government departments. This second reason is justified by the incidental assumption that the staffs of museums are "employed on unnecessary work." This phrase, of course, begs the whole question, and we cannot doubt that in regard to the Natural History Museum at least the decision is most unfortunate. That museum is a great educational institution, and to mention only one practical point, it seems a pity to deprive soldiers who may have to serve in tropical and subtropical countries of the opportunity of studying the admirable large scale models of parasites, such as the malarial parasite and the trypanosome, and the insects by which they are conveyed, displayed in the central halls of the museum.

THE CENTRAL PENSION COMMITTEE.

THE Prince of Wales, who came home on short leave on January 30th, presided in his capacity as chairman over a meeting on February 1st, attended by the members of the Statutory Committee appointed to carry out the provisions of the Naval and Military War Pensions Act, and also by the First Lord of the Admiralty, the Minister for War, representatives of many organizations for the benefit of crippled men, of Government Departments, and of local administrations. The Prince, in a very lucid speech, first sketched the history of what had been done in the past with regard to naval and military pensions, pointing out that until the Transvaal war the State had made no provision for widows and dependants. The weekly pensions since granted out of the taxes of the country were supplemented out of voluntary funds administered by the Royal Patriotic Fund Corporation. In this war, not only the rank and file, but also the officers, and even the higher commands, were drawn from all classes of the community, and in these new situations the State had been obliged to regard the problem of the widow and dependant, and the still more difficult problem of the disabled, whether from wounds or disease, from a different aspect. Parliament, expressing the will of the people, had decided that pensions and allowances for widows and dependants, and for the disabled, should be given on a higher scale, and should be paid as of right through the usual State departments, but if the rule of equality of sacrifice was followed it would be necessary to supplement these State pensions in some cases. If we were really as a nation to love and honour our stricken heroes and see that they were provided not alone with pensions, but with employment suited to their new conditions, and, if necessary, trained, it would be essential, in order to provide systematically for the health, training, and employment of disabled officers and men after they had left the service, that the whole country should be covered by a network of machinery capable of working in harmony, until, after many years, the last victims of the war had ceased to be. The Pensions Act enjoined on the Central Statutory Committee as its first duty the formation of a committee for every county and county borough, and for every borough and urban district having a large population. It was not intended that the Statutory Committee should impose hard and fast limitations of a uniform character upon the various local authorities. The promised State grant of one million to start the work should be used, in the wealthier areas at all events, to supplement and stimulate, not to supplant and suffocate local efforts and local generosity. As showing the magnitude of the task, the Prince said that the total number of all ranks killed in the South African war was 21,942; the total number of all ranks killed in the present war was already 128,138. The total casualties in all ranks in the South African war was 44,876; in this war already 549,467. Mr. Balfour, in moving a vote of thanks to the Prince, said that the scheme was to combine in one great system all the advantages of central organization with those of local organization and charitable assistance. He believed that if the machinery set in motion by Parliament were worked as it might be worked it would be possible, if not to avoid all mistakes, at least to mitigate the inevitable sufferings of the men who defended the interests of the empire and those dependent on them. Earl Kitchener, who seconded, said that the Prince's experience at the front had enabled him to appreciate how great would be the demands on our humanity, our patriotism, and our sense of gratitude. The vote was carried by acclamation, and thereafter a business meeting of the Committee was held, at which it was resolved to ask the local committees to agree on a standard of relief and to issue a model scheme.

THE ATTESTED MEDICAL MAN.

IN view of the answer recently given in the House of Commons by Mr. Walter Long to a proposal made by Mr. King that medical men and dentists should be exempted from the provisions of the Compulsion Bill, it is well to call the attention of members of both professions to their present position as far as we are able to gather it. It is known that a certain number of medical men, both married and single, attested under Lord Derby's original scheme; and it is probable that the same remark applies to the dental profession. With regard to medical men who attested, the official statement by the Army Council, published in the BRITISH MEDICAL JOURNAL of January 15th last (p. 102) has made clear the course of action that they should pursue. They have been told by the Army Council that they should enrol with the Central Medical War Committee or the Scottish Medical Service Emergency Committee, as the case may be, by signing an application for a commission in the R.A.M.C., and leave it to the committee to call upon them for service if and when they are required. When they have enrolled they will receive from the committee a certificate of enrolment; and if they are called up in the group to which they belong under Lord Derby's scheme, they must produce to the recruiting officer their certificate. This will exempt them from service in the combatant ranks, and it will be left to the medical war committee to call upon their services when necessary. Under the Military Service Act members of the medical and dental profession, who are single and under 40 years of age, will be attested compulsorily; as a result these men will be liable to be called upon to take service in a combatant capacity. It is highly important, therefore, that all medical men, and such members of the dental profession as hold a medical qualification, and have under the new Act become liable for service, should forthwith enrol with the committee of the county to which they belong. In this way, whenever the time arrives for the attested group to which they belong to be called up, they will be armed with a certificate of enrolment, and so able to place their position before the recruiting officer. Unless they are prepared in this way, they may find it extremely troublesome, if not difficult, to escape from combatant service. The effect on the treatment of the civilian population may be even more serious than upon recruiting for the R.A.M.C.

THE MILITARY SERVICE ACT.

THE Military Service Act, 1916, which has just been passed, directs the establishment of three grades of tribunals for dealing with applications for exemption from its provisions—local tribunals, an appeal tribunal for counties or groups of counties, and a central tribunal. The local tribunals are to be appointed by the local registration authorities under the National Registration Act. There are four grounds for an application for exemption to a local tribunal: (1) That it is expedient in the national interests that the individual, instead of being employed in military service, should be engaged in other work; (2) that serious hardship would ensue if he were called up, owing to special financial, business, or domestic obligations; (3) on the ground of ill health or infirmity; and (4) on the ground of conscientious objection to undertaking combatant service. The local tribunal, if it considers the application established, will grant a certificate of exemption. A Government department may, after consultation with the Army Council, grant certificates of exemption to men, or classes or bodies of men, in the employment of the department, or engaged or qualified for employment in any work within the sphere of the department certified by it to be of national importance. There is an appeal from the decision of the Government department to the Treasury, whose decision will be final. A certificate of exemption may be absolute, conditional, or temporary, and in the case of application on conscientious grounds may take the form of exemption from combatant duties only, or be conditional on the applicant being engaged in some work which, in the opinion of the local tribunal, is of national importance. A certificate granted on the ground of special financial, business, or domestic obligations must be a conditional or temporary certificate only. There is an appeal from the local tribunal to the county appeal tribunal, and the President of the Local Government Board has issued a circular letter to the chairmen of county councils, lord mayors and mayors, asking them to take steps to submit a list of suitable persons to act on the county appeal tribunal. It will be the duty of the appeal tribunal to afford an opportunity to the parties to any appeal to appear in person. The circular letter points out that it is of the highest importance that the tribunal should command the confidence of the community, and that, inasmuch as the labouring population will have a large interest in the questions to be determined, a fair proportion of the members of the tribunal should be direct representatives of labour. It is further suggested that at least one member of the tribunal should have legal training and experience, and that women should be placed upon the tribunals. No person whose name is suggested should be a man of military age who has not been attested or pronounced physically unfit for military service. The members of the appeal tribunals will be appointed by His Majesty, as will also be the members of the central tribunal for Great Britain, to which appeals may be taken from the county appeal tribunal. In grouping counties for the purpose of appointing appeal tribunals the county boroughs within the area are included, with the exception that for London and for Middlesex there will be separate tribunals.

SECONDARY CLOSING OF WAR WOUNDS.

CARREL, Dehelly and Dumas presented to the Paris Academy of Medicine on January 18th a paper on the secondary closure of war wounds, in a continuation of the work already reviewed in these columns, on the abortive treatment of infected wounds based on the employment of sodium hypochlorite prepared according to Dakin's formula. In this earlier paper, as evidence of the utility of the method, cases were cited of the union by first intention of wounds which had been closed after a relatively short but vigorous course of antiseptic treatment. More extensive experience with the method led the authors to believe that such secondary closures of wounds was a general method of great value. Free incision of wounds, while essential for their successful exploration and for the removal of foreign bodies, had serious drawbacks by prolonging subsequent treatment and interfering with normal cicatrization. The cicatricial tissue eventually filled the spaces between the muscles, aponeurosis and skin, and the surfaces of these latter structures were apt to become adherent by a solid cicatricial mass of new tissue which impeded or even altogether prevented muscular contractions. To avoid this, an attempt was made to draw the various corresponding surfaces of a wound together at an early date so that the development of new connective tissue was reduced to a thin sheet, which did not seriously interfers with muscular function. This they found could be accomplished with almost constant success by employing the following method: Within a few hours of their infliction the wounds are opened up so as to admit of careful exploration, cleansing and haemostasis. During the following days the hypochlorite solution was instilled constantly by the technique already described in these columns. After all signs of infection had disappeared and successive bacteriological examinations had indicated a progressive diminution of bacteria, ending in their disappearance, the wounds were closed. This was usually done between the fourth and tenth day. When infection

was avoided, it was found that the various tissues preserved their characteristics practically unaltered during the period of antiseptic treatment, and the authors stated that wounds so treated were comparable in every way with fresh operative wounds and united by first intention. To effect this, it is essential that all parts of the wound should be brought into apposition as exactly as possible. The wound should be closed with adhesive strips 2½ c.cm. to 5 c.cm. broad. In general they preferred to avoid sutures. The facility with which direct union was obtained in the majority of cases was ascribed to good preliminary antisepsis. The authors believe that many wounds can be closed secondarily at a later stage with advantage. As a rule the skin is adherent to the subjacent structures and granulation tissue has filled the intermuscular spaces. In order to close such wounds it was found necessary to loosen the skin from the edges of the wound and to curette the granulation tissue; the various parts were then brought into apposition and the skin closed with sutures. These procedures, it was stated, materially hastened the rate of recovery, and did much to avoid stiffness and atrophic changes. The authors reaffirm their belief in the efficacy of hypochlorite instillation, stating that it alone permitted of a sufficiently rapid sterilization, so that in most cases the wounds could be closed before the tenth day. In an interesting discussion following the presentation of the paper M. Dastre expressed the opinion that union of wounds by first intention could not be regarded as proof of sterilization. He and some other speakers expressed the opinion that the beneficial effect of hypochlorite was due to its ability to clear away damaged and necrotic tissue and to destroy toxins rather than to its antiseptic action. M. Pozzi warmly advocated the use of hypochlorite, and adversely criticized some inconclusive experiments of Delbet on the germicidal action of hypochlorites. M. Quénu and M. Bazy considered that good surgical technique and free irrigation were of more importance than the employment of hypochlorite as an antiseptic.

THE CONTROL OF TUBERCULOSIS IN WAR TIME.

THE concentration of national energy upon the provision of naval and military requirements has of necessity lessened the force of the movement, which was steadily gathering strength before the war, for the eradication of tuberculosis. Although lessened, the work has not been suspended, and it would seem to be a fitting time to take stock, as it were, of the experience already gained, and to endeavour to come to some agreement as to the best lines to pursue in the further progress of the campaign, and as to the manner in which economy can be practised with as little loss of efficiency as possible. With this object the *British Journal of Tuberculosis*, in its number for January, 1916, has collated the views of several physicians and medical officers of health who had been invited to contribute to a symposium of representative opinion as to the present needs and future prospects of the antituberculosis crusade. Appropriately headed by a word of advice from the Regius Professor of Physic in the University of Cambridge, the symposium contains many brief but valuable annotations. Sir Clifford Allbutt comments upon the futility of expenditure of large sums upon systems of cure while day by day fresh infections are multiplying the victims of the disease. He would evidently prefer to see such expenditure taking the form of provision for segregation of the infective cases. Such provision, however, even in the most peaceful times, must of necessity involve questions of personal freedom and respect for property which could only be solved by legislative enactments, wholly impracticable in existing circumstances. His further advice—that existing machinery only should be employed at the present time, and pioneer work neglected—is quite in accordance with the views expressed by others, including Dr. Hope, M.O.H. Liverpool, who has found it necessary to give up examination of patients after treatment and examination of contacts, from sheer lack of medical assistance to carry on the work. The sanatorium question is presented in a very practical form by Dr. Williamson of Edinburgh, and the figures with respect to cost which he records deserve thoughtful consideration. It is obvious that very large sums are being spent in "improving" the health of persons who can only return to the very conditions of life under which their health became impaired. He also would prefer to see such expenditure allotted to preventive rather than to curative measures. Dr. Hyslop Thomson in like manner would exercise economy by reduction of sanatorium treatment, and would endeavour to increase hospital accommodation both for early and advanced cases. An important question is raised by Dr. Jane Walker, who advocates residential sanatorium schools for tuberculous children, even if sanatorium treatment for adults be suspended. The general outcome of the many opinions expressed in the symposium, in addition to those already referred to, would seem to be that at the present juncture it is essential that the work of the tuberculosis dispensaries should not be relaxed, but that more attention should be paid to domiciliary treatment and to the control of infected children, especially as this can often be done by partially trained nurses or visitors. Segregation of the advanced case is as desirable as ever, but is as far as ever from practical realization. Expenditure upon sanatorium treatment should be greatly curtailed, and strictly limited to the treatment of cases in which real arrest of the disease may reasonably be expected.

THE INSURANCE COMMISSIONERS AND MEDICAL RECRUITING.

IN reply to a remonstrance addressed to him by a medical practitioner the clerk of the Middlesex Insurance Committee has written to explain that the circular letter to which we called attention last week (p. 175) was not intended to mean quite what it appeared to mean. He says that the Committee is second to none in its desire to give the greatest possible assistance to the army, and only asks that when a doctor offers his services to the R.A.M.C. it may have an opportunity of seeing that proper arrangements are made for the treatment of the members of the civil population he had undertaken to attend. In some cases, he states, it has happened that the first intimation the Committee received that a doctor had joined the R.A.M.C. was that a patient had called at his surgery and found it closed. The circular letter was sent with the view of avoiding similar circumstances arising in the future. We hardly think that this excuses the terms of the letter. It may have happened occasionally that all the patients of a panel practitioner have not become aware of the departure of the doctor, but the public is very oblivious, and does not always read notices with sufficient attention. We believe that the arrangements made by the Central Medical War Committee are sufficient amply to prevent any real inconvenience. It is, of course, necessary that every doctor of military age (that is to say, under 45) and physically fit should enrol with that Committee, when, after consultation with the local Medical War Committee, all arrangements will be made for the conduct of the departing practitioner's practice with the least possible inconvenience to his patients and the least possible loss to himself.

WE regret to have to record the deaths of Mr. Stanley Boyd, senior surgeon to Charing Cross Hospital, on February 1st, and of Mr. Charles Stonham, C.M.G., senior surgeon to Westminster Hospital, which occurred on January 31st as the result of an illness contracted while serving, with the rank of Colonel A.M.S., as consulting surgeon with the forces in Egypt. We hope to publish obituary notices in a future issue.

Medical Notes in Parliament.

War.

Medical Students.—On January 27th Mr. Cautley asked a question as to the employment of medical students in the 1st Eastern General Hospital (Cambridge), and inquired whether the employment of senior students in military hospitals in this country could be extended without requiring them to enlist as privates in the R.A.M.C., so setting free qualified medical men now working in military hospitals for other duties. The Financial Secretary to the War Office said that the employment of students in the 1st Eastern General Hospital was a matter of private arrangement between the Cambridge school and the officer commanding the hospital. It was possible that senior students might do work in military hospitals elsewhere under similar arrangements, but if they had not completed the prescribed period of their medical studies they would not be exempt from military service under Lord Derby's scheme. Students employed in this way could not undertake the duties of qualified medical men.

Physical Unfitness.—On January 27th Mr. Tennant said that, in view of the fact that the decision to reject men as the result of a medical examination under Lord Derby's scheme had in many cases to be reached hurriedly, it might be necessary to call up such men for a fresh medical examination. Every effort would be made to carry out the medical examination of recruits as expeditiously as possible, so as to obviate any inconvenience to them or their employers, but the number of doctors available was limited, and the work must be done efficiently and not over-hurried.

Medical Appliances for Military Hospitals.—Mr. Tennant stated, on January 26th, in reply to Mr. R. Gwynne, that there was no regulation in military hospitals directing that medical appliances should be ordered only from Woolwich, as the question suggested. The regulations provided for local purchase under urgent circumstances, but this was a more expensive method of meeting requirements than by obtaining what was wanted from War Office contractors.

Wounded Soldiers: Selection of Hospitals.—Mr. Barnes, on January 27th, asked a question as to the inconvenience and cost to the relatives of wounded soldiers sent to hospitals far removed from their homes. The Financial Secretary to the War Office said that as far as possible the existing practice was to send wounded men to hospitals near their homes, but it was not possible to send every man to the hospital to which he would prefer to be admitted. Some were too ill to stand the fatigue, others were earmarked overseas for admission to hospitals specially set apart for the class of sickness or injury from which they were suffering. It was also necessary to distribute men in ambulance train loads—that was to say, in groups of a hundred or so, as railway conditions did not permit of the disturbance of traffic which would arise from a train dropping cases here and there between the port of disembarkation and the ultimate destination. Consequently some men must find themselves in hospitals removed from their homes, but arrangements could generally be made for the patient's transfer to a hospital near his home so soon as he was fit to travel, provided the medical authorities were satisfied that the case was one suitable for treatment in the hospital to which the transfer was requested.

Army Medical Services (Advisory Board).—In reply to Mr. Lynch, on January 26th, Mr. Tennant said that the Army Medical Service Advisory Board exercised no control, but advised the D.G.A.M.S. The value of the opinions of individual members of the Advisory Board was in no way affected by the military positions they now occupied. Mr. Tennant, in reply to another question, said that the Board was not instituted by Order in Council. Those of its members who received pay were paid from army funds. The decisions of the Directors-General in England and France were not subject to the concurrence of the Board. Mr. Lynch asked whether the Board had done the service for which it was instituted. Mr. Tennant replied that it had in peace time. In reply to a further suggestion whether, as the Board did not meet, steps would be taken to eliminate the expense of keeping up a board whose advisory functions had ceased since the war broke out, Mr. Tennant said that the non-official members of the Board were employed in an advisory capacity. Those in France were similarly employed as an advisory board to the Director-General of the Medical Services.

Total Casualties.—On January 27th the Prime Minister furnished the following statistics of the casualties in all fields of operations down to January 9th. The total is 21,240 in excess of that given by the Prime Minister for the casualties to December 9th, 1915. The number of killed shows an increase of 8,215, and of wounded 14,525; the number of missing shows a decrease of 1,500. The figures are as follows:

	Officers.	Other Ranks.
France.		
Killed...	5,318	82,130
Wounded	10,217	248,990
Missing	1,691	52,344
Total	17,046	383,464
		400,510
Dardanelles.		
Killed...	1,745	26,455
Wounded	3,143	74,952
Missing	353	10,901
Total	5,241	112,308
		117,549
Other Theatres.		
Killed...	918	11,752
Wounded	816	15,165
Missing	101	2,656
Total	1,835	29,573
		31,408
Grand Total.		
Killed...	128,138	
Wounded	353,283	
Missing	68,046	
	549,467	

Scientific Research.—Sir Philip Magnus asked the Prime Minister to consider the desirability of appointing a mixed committee of M.P.'s and others having a practical knowledge of the subject to inquire into the organization of education in this country, and to report as to whether, having regard to the experience gained in the operations of the war and to the new social and economic conditions that may result when the war is over, changes may be advisable in our national system of education with a view to establishing, without unduly interfering with other aims, a closer connexion between commercial and industrial requirements and the teaching provided in educational institutions, and in order to secure such further development as may be found necessary of existing facilities for scientific research, and the better training of all classes of the population for the activities in which they may be severally engaged. The Prime Minister said that the scheme of educational development which had been foreshadowed was last year reconsidered in the light of existing conditions and the probable requirements of the country after the war. Partial effect had been given to the scheme, which was concerned with the special scientific and industrial interests. The President of the Board of Education would be happy to consult all persons or bodies in a position to give advice on this matter, but it was not thought necessary to set up a committee.

Effect of Liquor Control Regulations.—On January 26th the Parliamentary Secretary to the Munitions Department (Dr. Addison) stated that the average weekly convictions for the principal areas scheduled in England, comparing the four weeks ending December 19th with the four weeks preceding the Order, had fallen approximately 50 per cent. The reductions had been as follows:

	Per cent.
North-east Coast area	... 37
Liverpool and Mersey area	... 46
Midland area	... 63
West Riding area	... 53

The figures in Scotland, although less satisfactory, showed a substantial reduction, and, as the result of an inquiry recently held in Glasgow, there seemed no reason why results as satisfactory as those in England should not be obtained in Scotland. Although detailed figures were not available, he was informed that the more serious offences connected with or caused by drunkenness had diminished in almost all areas even more rapidly than the more venial cases.

THE WAR.

WAR, DISEASE, AND A MUSEUM.

(From a Correspondent in Northern France.)

I SEE that at home you are talking of organizing science. Out here we have done so already. That "we" of course means "they." In the evening, when the day's work is over or its journey done, I think I have helped in the organizing process. In the morning—at the hour of wonder if one's boots have dried—I know that I have not. But why explain? If the fly always tries to alight on the fastest-moving wheel, who shall blame it for a little pride in its speed?

Out here Organized Science meets one right and left. It is of two main types, and the organization mainly lies in endeavouring to secure that the resources of the one shall assist the practice of the other.

Scientific instruments of destruction require human operators, and to help to keep these operators healthy is the task of preventive medicine. Never, perhaps, in any previous war has this been so thoroughly recognized, and never before has preventive medicine so well justified its title. Chemistry, pathology, entomology, and bacteriology are all four working in its service, and the result is real and effective sanitation.

There have certainly been set-backs: "trench foot," "war nephritis," and "trench fever" are perhaps instances of them; but the radical cause of the first is for the most irremovable, and the causes of the two latter have so far baffled research. Meantime it is something to the good that the diseases themselves should have been differentiated from their congeners, and that of the blind alleys that confuse the path towards discovery of their initial cause, many at any rate have been closed.

There has also, it is true, been plenty of sickness, but the total is marvellously small considering the environment and weather in which so much of the war in Flanders and the Aisne valley has been fought. Furthermore, it has to a great extent been sickness of a domestic rather than a military order. What one used to call the water-borne diseases have throughout been kept well under control; the known dietetic diseases have been almost conspicuous by their absence; dental troubles as a source of wastage have been handled with success; and the disorders of tropical or semi-tropical origin which the Indian troops might have been expected to import have almost failed to put in an appearance.

So far, in fact, the morbidity complexion of the whole operations in France during the past sixteen months has singularly differed from that of previous campaigns; in all these, sickness proved out and away a much more formidable source of wastage, both temporary and permanent, than the weapons of the enemy.

All this is already, I suppose, well known, as also are the more conspicuous factors in bringing about so satisfactory a result: The guarding of water supplies, and the careful treatment of all those of doubtful origin; the testing at the hygiene laboratories not only of rations, but of all food known to be used by the troops; the provision of bath-houses and of laundries, and the issue of parasite-free clothing and blankets; the cleansing and disinfection of billets; the destruction of garbage and of manure or other possible breeding places for flies; the assiduous attention to the cleanliness of camps; the employment of sanitary squads at railheads and of sanitary sections at bases and corps head quarters; the isolation of patients suffering from infectious disorders, as also contacts, whether of the Expeditionary Force or of the civil population brought into relation therewith; the steady practice of anti-typhoid inoculation (a vaccine valent also against the paratyphoids is now being used); the chronic search for "carriers" of all orders, civil as well as military; the instant investigation, with the help of the mobile and of the base pathological laboratories, of all outbreaks of disease, whether amongst the troops in the fighting zone or of those on the lines of communication or elsewhere; the maintenance of spot maps, charts, and tables, revealing the health-history of every unit in the field; and the co-ordination of all work and the due stimulation of all workers by the principal pathologist and the principal sanitary expert on the staff of the D.G.M.S.

These no doubt are the main factors, but there is also another circumstance which has probably exercised a good deal of influence.

For years past the general principles and demands of hygiene have been gaining increasing acceptance among laymen as the result of a campaign which has been especially active in the army. Consequently the Expeditionary Force contains quite an effective proportion of officers, non-commissioned officers, and men who, unlike their predecessors in South Africa and elsewhere, are far from regarding sanitary counsels as mere medical fads, and realize that rules regarding sanitation are quite worth keeping if circumstances are in the least degree favourable thereto.

This spirit, if it exists, must certainly have contributed to the success in question, and among other circumstances there is one—a little straw, if you please—which to my mind renders its existence indubitable.

Many of middle age will remember the old Parkes Museum in Margaret Street, the collection of embryo sanitary appliances, models, and illustrations of ideas, around which grew up the collection of the Royal Sanitary Institute now in Buckingham Palace Road. Well, sometime ago I came across a place of exactly the same kind out here. It had already been open some months, and, as far as I know, it is open still. The foundation of the Parkes Museum was due to the desire to commemorate one who had done much for the Army Medical Service. This said museum owes its creation to the enterprise of an army medical officer. Many of the objects displayed were those used by himself in his work as a sanitary expert, but the bulk of the exhibits, as also the bulk of the visitors, came from the battalions resting in the neighbourhood from a turn of duty in the trenches. How can one account for the existence and popularity of such a place in a townlet within a half a dozen miles of the fighting line except on the supposition that the spirit of hygiene has a real hold on the army as a whole?

To me personally this fighting zone museum was all the more striking because I well remember a foreign station visited by men and officers from both east and west, where there were the same needs as here, and the same materials for meeting them existed. Yet that station in all the years that I knew it never improved on its original highly imperfect sanitary appliances, or seemed to realize any need for doing so.

But in those days Hygiene had not acquired a capital letter, and as a cult had barely any existence either in professional or lay circles. That the present position is very different was proved by the multiplicity of ideas illustrated at the exhibition mentioned.

A detailed catalogue was in process of compilation, I understood, and excerpts from it will no doubt find place in the eventual medical history of the war. Meantime I can merely say that the exhibits as a whole seemed to fall into three main classes—appliances for storing and safeguarding food, ways of building latrines and latrine seats, ways of getting rid of refuse—and that in all cases the materials intended to be used were those to be found in every military camp, for example, empty oil drums, biscuit and jam tins, packing-cases, and wire.

In the first class, for instance, I recall a packing-case turned into a fly-proof food store by curving the edges of its open end and covering this with a weighted curtain. In the second class, Surgeon-General McPherson's plan, by which any user of a latrine becomes his own conservancy man, urine and faeces being kept separate and both being destroyed forthwith by fire. In the third, a series of destructors and incinerators built out of practically nothing beyond empty tins, ashes, and clay. These were shown in actual operation, doing all the work created by a large army of men, and doing it very effectively.

Other forms of refuse destructors on view included one which was especially attractive on account of its simplicity. It was, however, best suited for dealing with bulky refuse, such as manure, while the two former mentioned will destroy effectually anything and everything, including the contents of latrine buckets.

The method consisted in crushing a quantity of old wire or iron bands into a heap measuring 18 in. or so in height and 3 ft. or 4 ft. in diameter, and using this as the foundation for a rubbish heap. Such refuse heaps

once set alight burn steadily and continuously for weeks, despite falling rain and whatever additions be made to them. After a time fine ashes collect round the edges in sufficient quantity to choke the draught, and the central wire core can then be pulled out and used to build a fresh pyre.

There was much else that was interesting, and this exhibition, in conjunction with other circumstances, seems to justify a remark to the effect that in the British army the cult of Aesculapius is replaced by the worship of Hygeia, whose temple is the battalion cookhouse and the camp latrine. In its original form it was made, I believe, by an Irish M.O. now in the Near East.

THE DUTIES OF A SANITARY SECTION IN THE FIELD.

WE are indebted to Major Charles E. Goddard, M.D., R.A.M.C.(T.), for the following notes:

From time to time we hear of the remarkable work that is being accomplished by different branches of the sanitary service, and it may therefore be considered an opportune moment to refer to the special work of a sanitary section.

Though not actually a new unit in army establishment, a brief note as to its source, distribution, and special duties will afford many points of interest to the student of army sanitation.

At the outbreak of war, or soon afterwards, instructions were received from the War Office to increase the strength of the London (Territorial) Sanitary Companies by enrolling new companies with a view to the formation of sanitary sections for service in the field. So successful was the response, and so efficient the training and equipping of the men, that every division of the army has been supplied with one of these sections.

Each of the sections has a personnel of twenty-six men, not including the Army Service Corps men—that is, one officer, twenty-five non-commissioned officers and men. As to the choice of officers, preference has always been given to medical men who are medical officers of health, or who hold diplomas of public health or are bacteriologists; a few are sanitary engineers, and even architects. A large percentage of the non-commissioned officers are sanitary inspectors, and among the rank and file are found many plumbers with sanitary diplomas, carpenters, schoolmasters, men of all ranks of life, graduates in honours even from Oxford, Cambridge, and other universities, solicitors, chemists, and representatives of all the professions and trades. In this way it will be seen that there is no difficulty in providing for each section a sufficient number of disinfectors, interpreters, carpenters, cooks, builders, and, in fact, supplying any man likely to be of service in the field.

The first twelve sections, with twelve lorries full of equipment, were sent to France on Christmas Day, 1914, with the senior officer of the 2nd London Sanitary Company in command. Each division was then, and is now, supplied with one section, the A.D.M.S. of the Division being responsible for their work.

Such work includes bathing of the troops in thousands, disinfecting of the men for vermin after enteric, cerebro-spinal fever or other infectious diseases; disinfection of all clothing and blankets; the purification of water; the draining of farms and billets; making, or giving instruction for, the erection of destructors or incinerators, ablution places, grease traps, urine pits, filters, fly traps, and, in fact, making every kind of installation, structure, or appliance that appertains to sanitation in the field.

It would be impossible to enter into details of all the good work done by these men, but reference may be made to the baths that were used in Ypres, for example in February, 1915. Here, about two miles from the trenches, was a massive red building, built and endowed by the late King of the Belgians as a school or reformatory. It had been badly shelled, but the sanitary men soon found tubs and old baths and pumped water into the boilers in the kitchen, and had excellent baths going in a few hours. Everything was carried out with system and dispatch. None of those who were there last February will forget the delight of the men at the sight of the hot baths and the hot beef-tea on coming out of the trenches, or hearing their witty comments, and seeing them in such high spirits in spite of all they were going through. At last the enemy got the exact range of the building. The position became untenable, and other baths had to be found at breweries and other places further back. Now this huge building and the whole city of Ypres has been entirely destroyed.

Sometimes these sections are sent to the trenches. On one occasion one of the sections was asked to volunteer to help to collect the wounded who were lying outside the trenches in too great a number for the field ambulance to deal with. Every member offered and went, gaining the thanks of the general through the A.D.M.S. the next day. On another occasion they were required to take an anti-gas apparatus to the trenches, but the enemy attack was so furious that night that the apparatus had to be abandoned, and the men remained to help the doctors to treat the wounded. They had a terrible experience, and one of their number was killed. These sanitary men are not really expected to work in the firing line, but they are sometimes required to work in the reserve trenches, and occasionally get wounded on purely sanitary work.

These are only a few things which have come to my personal knowledge, but one heard them spoken of as ever willing, nay, desirous, of helping their fighting brothers in every way possible. It might have been known that such would be the case, not so much from the rank of life from which these sections are formed, but because they felt that, though many of them had had no military training, they could not be more usefully employed. The Commander-in-Chief in his last two dispatches has recognized their value by mentioning no less than thirteen of their officers and quite a number of their men.

It is good to think that there is such a body of experts who can assist the R.A.M.C. officers in watching over the health and sanitation of our brave fellows at the front.

CASUALTIES IN THE MEDICAL SERVICES.

Killed in Action.

LIEUTENANT ALFRED NOEL GARROD, R.A.M.C., 100th Field Ambulance, was killed by a shell in France on January 26th. He was the eldest son of Dr. A. E. Garrod, physician to St. Bartholomew's Hospital, and grandson of the late Sir Alfred Garrod and Sir Thomas Smith, Bt., K.C.V.O. He received his education at Marlborough, Cambridge, and St. Bartholomew's Hospital, and took the degree of B.A.Camb. and the diplomas of M.R.C.S. and L.R.C.P.Lond. in 1914. He had held the office of house-surgeon at St. Bartholomew's Hospital. Lieutenant Garrod received his commission (temporary) in the R.A.M.C. in July last, and went to France in November with the 100th Field Ambulance. During December he was attached to the 22nd Royal Fusiliers, but subsequently rejoined the field ambulance, and was serving with it when killed. His second brother, Lieutenant T. M. Garrod, Loyal North Lancashire Regiment, was killed on May 10th, 1915.

Died on Service.

Lieutenant-Colonel Henry Bridges Yates, of the Canadian Army Medical Corps, died in the Canadian Military Hospital at Ramsgate in January, aged 60. He was born in May, 1855, the son of Henry Yates of Brantford, Canada, was Medical Officer of the 3rd Victoria Rifles, Montreal, came to England as A.D.M.S. of the 4th Montreal Canadian Division, went to France in May as second in command of the No. 3 Canadian General Hospital, and was invalided to England early in December. He married in 1896 Miss Alice Bunting of Toronto, and leaves a widow and two sons, one of whom is now serving in the Canadian contingent. He was a Knight of St. Olaf of Norway, and a Knight of Grace of St. John of Jerusalem.

Wounded.

Captain H. H. B. Cunningham, R.A.M.C.(T.F.), Mediterranean.

Captain J. E. T. Jones, R.A.M.C. (temporary), France.

Captain T. L. Spackman, R.A.M.C. (temporary), Mesopotamia.

Captain H. F. Wilkin, R.A.M.C.(T.F.), attached 5th Durham Light Infantry, France.

Lieutenant W. Campbell, R.A.M.C. (temporary), Mediterranean.

Lieutenant T. E. Hammond, F.R.C.S., R.A.M.C. (temporary), Mediterranean.

Prisoners of War.

The *Times* of January 26th announces the release at Kolmaka, in the Cameroons, by the capture of that station on January 8th, of seven officers who were prisoners of war there. Among them are Dr. Lindsay and Dr. Trumper of the West African Medical Service, who were taken in October, 1914.

We are informed that Dr. Catherine L. Corbett, of the London Education Committee, who was serving with a hospital in Serbia, has been taken prisoner there. Dr. Elizabeth Brook, of the same service, who has also been serving in Serbia, has returned home.

DEATHS AMONG SONS OF MEDICAL MEN.

Adam, Alan Gordon Acheson, Captain 1/5th The Buffs (Weald of Kent), killed in action in Mesopotamia on January 21-22nd, was the fifth son of the late Dr. James Adam of Malling, Kent, and Mrs. Adam of Hythe, and was born in July, 1887. He was educated at Marlborough and Selwyn, Cambridge, took the B.A. degree in 1907, and passed the final law examination in 1910. He joined the 5th Buffs in 1911 while practising in Cranbrook. He left with his regiment for India in November, 1914, was shortly afterwards gazetted captain, and proceeded to Mesopotamia in December last.

Colson, Edward, Major 41st Dogras, eldest son of Surgeon-Major E. Colson, I.M.S. (retired), died in Mesopotamia on January 13-14th, of wounds, aged 41. He was born on October 29th, 1874, got his first commission in the South Wales Borderers, through the Militia, on December 7th, 1895, joined the Indian army on January 29th, 1899, became Captain on December 7th, 1904, and Major on December 7th, 1913. He served in China in 1900, and received the medal.

Grimshaw, Ewing Wrigley, Lieutenant-Colonel 62nd Punjabis, eldest son of the late T. W. Grimshaw, C.B., M.D., Registrar-General for Ireland, killed in Mesopotamia on January 21st, aged 48. He was born on February 10th, 1867, got his first commission in the Royal Dublin Fusiliers, through the Militia, on November 10th, 1888, joined the Indian army on June 14th, 1891, became Captain on November 10th, 1897, Major on November 10th, 1906, and Lieutenant-Colonel on November 10th, 1914. He served as Deputy Assistant Adjutant-General in India from 1901 to 1906.

Murray, Graham Dunmore, Second Lieutenant 2nd Battalion Northumberland Fusiliers, son of the late Dr. William Dunmore Murray of West Side, Clapham Common, killed in France on January 26th. He got his commission in March, 1915.

Skeen, Oliver St. John, Major 62nd Punjabis, son of the late Surgeon-General William Skeen, A.M.S., killed in Mesopotamia on January 21st. He was born on November 2nd, 1874, entered the army on January 16th, 1895, became Captain on January 16th, 1904, and Major on January 16th, 1913. He served in the South African war in 1900-01 as a special service officer, taking part in operations in the Transvaal, in the Orange River Colony and in Cape Colony, and received the Queen's medal with four clasps; also in Tibet in 1903-4, at the action of Nyani, the operations round Gyantie, and the march to Lhassa, medal with clasp; and took part in the defence of the Suez Canal last February, after which he received the D.S.O.

Smith, Neville, Captain Durham Light Infantry, the son of Dr. and Mrs. G. H. Smith of Hull, was killed in France on January 26th; he was a black and white artist on the staff of *Punch*.

HONOURS.

THE *London Gazette* of February 2nd contains a further list of awards and promotions for services in the field. The following are among the honours conferred on medical officers:

C.B.

Lieutenant-Colonel: W. W. Giblin (Australian A.M.C.).

C.M.G.

Colonel: C. H. Hale, D.S.O.

D.S.O.

Majors: W. R. Battye, M.B., F.R.C.S., I.M.S., and D. S. Skelton.

Captain: E. S. Phipson, M.B., I.M.S.

Military Cross.

Captains: J. H. Aikman, M.B. (temporary), G. D'R. Carr (temporary), C. C. Fitzgerald (T.F.), F. J. H. T. Frere, M.B., (S.R.), W. Rutherford, M.B. (T.F.), E. T. Brennan (Australian A.M.C.), C. W. Thompson (Australian A.M.C.).

Lieutenant: H. B. Atlee, M.D. (temporary).

The *London Gazette* of January 27th announces some additions to the list of officers mentioned in Viscount French's dispatch of November 30th, published on January 1st. Among them is Major G. W. G. Hughes, D.S.O., R.A.M.C.

The *London Gazette* of January 28th publishes a long list of officers mentioned for good service in the Gallipoli peninsula, in connexion with his dispatch of December 11th. Among them are the following medical officers:

STAFF.

Colonels: J. Maher, M. J. Sexton, and C. H. Hale, D.S.O., of the A.M.S.

Lieutenant-Colonels: G. St. C. Thom, D. S. Skelton, and W. M. B. Sparkes, R.A.M.C.

ROYAL ARMY MEDICAL COLLEGE.

Lieutenant-Colonels: D. D. Shanahan, H. M. Nichols, W. P. Gwynn, T. C. Mackenzie, D.S.O., J. F. M. Kelly.

Majors: A. M. McIntosh (temporary Lieutenant-Colonel), Benson, R. R. Lewis.

Captains: J. Y. Moore (S.R.), K. M. Levi (Australian A.M.C., killed), C. Cassidy, J. C. Young (S.R.), F. J. H. T. Frere (S.R.), A. Glen (S.R.), G. S. Pirie (S.R.), R. B. Lilly (temporary), G. D'R. Carr (temporary), J. H. Aikman (temporary).

Temporary Lieutenants: H. H. R. Bayley, W. Macdonald, H. B. Atlea, T. A. Peel (died of wounds), G. S. Goodwin.

ROYAL ARMY MEDICAL CORPS (T.F.).

Lieutenant-Colonels: T. Fraser, E. J. R. Evatt.

Captains: F. J. Green, G. Raymond, A. Findlater, P. S. Bedale, C. C. Fitzgerald, M. B. Rutherford, H. E. Quick, J. Macquarrie, W. R. Bristow.

AUSTRALIAN ARMY MEDICAL CORPS.

Lieutenant-Colonels: C. Garner, H. W. Bryant, A. H. Sturdee.

Majors: H. A. Pavell, L. W. Dunlop.

Captains: J. Bentley, E. T. Brennan, H. V. P. Conrick, A. L. Dawson, A. Y. Fullerton, C. W. Thompson, W. J. Stack, J. E. Dodds, L. St. V. Welch.

NEW ZEALAND ARMY MEDICAL CORPS.

Major: E. J. O'Neill.

Captains: K. McCormick, A. V. Short, R. N. Guthrie.

INDIAN MEDICAL SERVICE.

Majors: W. B. Battye, L. P. Brassey.

Captains: P. M. Rennie (1/5th Gurkhas), E. S. Phipson (1/6th Gurkhas).

INDIAN SUBORDINATE MEDICAL SERVICE.

Subassistant Surgeons: Ghans Muhammad, Sampuran Singh, Amar Nath Puri.

The list also contains the names of non-commissioned officers and men of the R.A.M.C., including the Special Reserve and Territorial Forces and of the Indian Subordinate Medical Service.

It is notified in the *London Gazette* that the King has granted to Lieutenant-Colonel Henry Edward Manning Douglas, V.C., D.S.O., R.A.M.C., Deputy Assistant Director of Medical Services, authority to wear the insignia of the fifth class of the Order of St. Sava, conferred upon him by the King of Serbia.

NOTES.

MEDICAL OFFICERS WANTED.

2/1st Home Counties Casualty Clearing Station.

Medical officers are required for this hospital. Applications to the Officer Commanding 2/1st H.C. Casualty Clearing Station, Surbiton.

Scotland.

THE Lanarkshire Insurance Committee has adopted a resolution calling attention to the bad state of housing in the county and the decrease in the number of new houses being erected. It has been led to take up the matter owing to the increasing number of cases in which patients formerly discharged from sanatoriums for tuberculosis have applied for readmission in a more advanced stage of the disease. This disquieting circumstance is attributed to the bad houses to which the patients had to return when discharged.

THE HIGHLANDS AND ISLANDS MEDICAL SERVICE BOARD.

The Highlands and Islands Medical Service Board has issued a series of schemes for the several districts concerned. Each contains a statement as to the general conditions, and a schedule showing the area for which each doctor is responsible. The notice sets out that the persons eligible to receive medical attendance at modified fees are "the families and dependants of insured persons, uninsured persons of the cotter and crofter classes and their families and dependants, and others in like circumstances to whom the payment of the practitioner's ordinary fee would be an undue burden." The fee to be charged for the first visit is not to exceed 5s., and for each subsequent

visit in the same illness 2s. 6d. The midwifery fee, including subsequent visits that may be necessary, is £1. It is pointed out that the fees will be the same whatever be the distance of the patient from the doctor's place of residence. It is the duty of the Board to ensure the doctor further compensation for his services out of the parliamentary grant. Where medicines are supplied by practitioners an additional moderate charge will be made, but where not the patients must themselves pay the chemists' charges. Persons desiring to participate in the benefits of the scheme must be prepared to comply with all such reasonable requirements of the practitioner as will enable him to make the best arrangements for his patients. Messages must be sent early enough to reach the doctor before the hour on which he ordinarily begins to visit patients, and if sent later must state whether his attendance is urgently needed that day, or whether a visit on the following day would be sufficient. Where the practitioner is accustomed to make fixed visits on certain specified days to particular localities, all calls for his services, except in urgent cases, should be reserved for those days. Where duly qualified district nurses are available, it is directed that special calls for the services of the doctor outside ordinary visiting hours to patients living at a distance should be made through the nurses wherever practicable. In the relatively few cases in which two or more practitioners practise in the same area, the patient is given the right to select the practitioner he desires, but it is added that urgent calls should, as a rule, be sent to the nearest available practitioner. Practitioners called to cases outside the area in which they have undertaken with the Board to give attendance may charge their ordinary visiting fees, and agreements between the Board and practitioners do not interfere with any private arrangements in existence between practitioners and their patients whereby the latter receive attendance under a system of annual payments for each individual or family. The concluding clause of the notice is printed in large type, and is to the following effect: "If it is proved to the satisfaction of the Board that the privilege of a medical service at modified fees is misused in any district or by any individual, the Board reserve the right to withdraw the service from any such district or individual. In such cases the practitioner's ordinary fee will be payable." The offices of the Board are at 4A, St. Andrew Square, Edinburgh.

Ireland.

THE guardians of certain unions in Ireland have found that considerable economies can be made by revising the dietary scale in the workhouses, which was drawn up sixteen years ago. The Roscommon guardians have recently decided to obtain copies of revised scales and to consult the Local Government Board as to the selection of the most suitable.

The first annual meeting has been held of the Temple Hill Auxiliary Hospital, near Dublin, which receives convalescent wounded soldiers and sailors. The house was offered by Mr. Hubert Power of Waterford and approved by the War Office for the accommodation of twenty convalescents, provided that the committee could show that it had in hand the sum of £1,200, which was at the rate of £60 a bed for maintenance for one year. The British Red Cross Society offered to contribute £300 if the local committee could raise £900. Generous support was received from individuals and from collections in parishes and church congregations. The work of the hospital has been carried on in the most efficient manner.

Alderman Dr. J. J. O'Sullivan, to whom his professional colleagues in Waterford recently made a presentation in recognition of his services in connexion with the settlement of the medical certification question under the Insurance Act, has been elected Mayor for the city of Waterford for 1916. It is very rarely a member of the medical profession in Ireland is selected to occupy the position of mayor, and it is all the more pleasing, in the present instance, to the Irish profession, as Dr. O'Sullivan has been in his professional and public capacity a consistent champion of his profession.

England and Wales.

AT the winter conference of the Charity Organization Society and kindred bodies, held last week in London, General Sir Neville Lyttelton, Governor of Chelsea Hospital, said that it was estimated that between 13,000 and 14,000 soldiers and sailors had been discharged since the war began; many of them had already been absorbed into the ordinary work of industrial life, and with the exception of those seriously injured, no difficulty had as yet arisen in providing work. But the longer the war dragged on the greater would be the number of men discharged unable to follow their ordinary civilian occupations, and the problem would become one difficult of solution. Earl Fortescue described what had been and still could be done by placing men on small farms.

In November, 1914, an emergency surgical aid corps was established in London with head quarters at the house of the Royal Society of Medicine. Sir Rickman Godlee, the chairman of the executive committee, reported to a recent meeting that the corps had accepted two distinct duties: first, that of arranging for assistance in the case of raids of any description on the east coast from Dover to the Wash, and, secondly, that of organizing similar help in the case of aërial raids on the metropolis. Its offers of service were cordially accepted by the War Office, and two divisions of the corps were formed, one for the east coast and the other for London. Boxes containing first-aid dressings were stored at No. 1, Wimpole Street, and a night watchman was engaged; 155 gentlemen volunteered to serve, but for various reasons, chiefly the acceptance of commissions in the naval or military forces, their number at the end of the year was reduced to 107. Altogether nine calls were received, but, except on one occasion in London, the services of the members of the corps were not eventually required. Nevertheless, in view of the opinions of the Chief Commissioner of the Metropolitan Police and of the War Office, it was decided to continue the corps on the same footing. The necessary expenses have been met by voluntary subscriptions from members of the corps; the chief expenditure was in respect of the night watchman.

Correspondence.

RETIRED MEDICAL MEN AND MILITARY SERVICE.

SIR,—I have recently received several letters from senior medical men who have retired from serving in the Indian Medical Service, the Colonies, etc., and who lament that at present no place can be found for them in the national services of the sick and wounded of our navy and army. These gentlemen have mostly occupied high positions; they possess great experience in medical and surgical diseases and injuries, and, although they have retired, still enjoy an amount of health and energy which might be placed at the disposal of the nation.

From the most patriotic and laudable of motives, they chafe under the restrictions which prevent them from devoting their energies to the service of the country in connexion with the navy and army, while they naturally feel that these would be wasted were they, after the prominent positions which they have occupied and the exceptional experience which they have acquired, to adopt the only course which is available to them at present—that, namely, of offering to relieve general practitioners and panel doctors who have left to serve in the Royal Army Medical Corps.

It may be asked: Why do they not apply to the Central Medical War Committee, who are conferring on such subjects with the Director-General of the Army Medical Service? To this I would answer: *That* is the proper course to take, but not until it has been ascertained in what numbers and in what capacities these highly trained men are prepared to serve. Were this made certain, and were it evident that a considerable and valuable contingent were at the disposal of the nation, then the Central Medical War Committee should be approached, in order that it might confer with the heads of the Navy and Army Medical Services, so as to discover in what manner and

to what extent it could be utilized, either now, or when coming events may have increased the strain on the physicians and surgeons of the country.

If any of those interested in this subject will communicate with me, I shall be glad to have their suggestions, and perhaps arrange to have a meeting called should the response to this letter seem to warrant it.—I am, etc.,

ALEX. OGSTON,
President of the British Medical Association.

252, Union Street, Aberdeen,
January 30th, 1916.

THE SOLDIER'S "IRRITABLE HEART."

SIR,—I have read with great interest the valuable contributions to the etiology and treatment of this important condition which appeared in the JOURNAL of January 22nd. The causation of "irritable heart" is undoubtedly complex, but I was surprised to discover only one reference—casually by Dr. Poynton—to a cause which I am convinced is largely responsible, in combination no doubt in most cases with other causes, for disordered cardiac action, namely, tobacco. That tobacco smoked to excess—more especially the cigarette—is competent to upset the heart is a well recognized fact. I have had personal experience of the effect of smoking too many strong Burma cheroots. Intermittent action, palpitation and excitability of heart, breathlessness, anorexia, giddiness and general slackness were the principal symptoms. Probably hard work in the trying climate of Calcutta contributed to the development of these indications. They disappeared with a more moderate use of milder tobacco, and have not recurred. That the heart was not organically or permanently damaged is proved by the fact that, at the age of 75, I am able to negotiate a fairly stiff incline on my bicycle without palpitation or breathlessness. That soldiers in this war smoke to excess is, I think, unquestionable; and in the treatment of "irritable heart" the limitation of pipe and cigarette smoking should, I submit, constitute a leading item.—I am, etc.,

Westend, Hants, Jan. 25th. KENNETH MACLEOD.

THE DIAGNOSIS OF FUNCTIONAL HEART DISEASE IN THE RECRUIT.

SIR,—Even at this, which might be termed the eleventh hour in the medical examination of recruits, I am convinced that the haziest notions are prevalent amongst medical men in the diagnosis of functional heart disease.

In spite of the writings of Sir James Mackenzie and others, the examiner of recruits is frequently undecided in coming to a conclusion regarding a particular case, more especially when the recruit brings a note from his doctor which states that the bearer has tachycardia, heart weakness, or arrhythmia, rendering him totally incapable for military service.

The following simple rules I have found most useful, and I hope will be useful to others:

1. *Medical History.*—Has the recruit had rheumatic fever, syphilis, or does he indulge to excess in alcohol?

What is his occupation, and if laborious, does he complain of any of the classical symptoms of cardiac deficiency? In other words, ascertain if his "field of cardiac response" is normal. Inquiries in this direction need only take a few seconds. The question of anaemia with haemic murmurs does not obtain in examining recruits, as they are practically confined to women. If the recruit's medical history is above suspicion, a glance at the apex beat and application of the stethoscope at the various regions of the heart at once proclaim the healthy heart.

2. *Physical Examination.*—Having obtained a suspicious medical history, noticed a misplaced apex beat, or heard a murmur, I would advise a systematic examination, which only takes a few minutes, when done in the following manner:

(*a*) Note apex beat and rapidly percuss out left side of the heart. This should be the first and is the most important examination.

(*b*) Granted the apex beat and size of the heart as obtained from percussion are normal, it is almost certain there is no incapacitating heart disease, but to make doubly sure listen to the mitral area. An organic murmur heard there will be propagated to the axilla. A functional murmur is immediately lost to the left of the apex beat. It may increase in intensity as it is traced inwards, and it always can be heard in the pulmonary area, where it is louder than at the apex. Compare the intensity of the murmur in these two areas by going immediately from the one to the other. If the murmur is louder in the pulmonary area than the mitral and is not propagated to the axilla, it is functional heart disease we have to deal with. An additional proof of a functional murmur, if one were needed, is that the second sound at the pulmonary area is only accentuated when we have organic mitral disease.—I am, etc.,

T. STEWART ALLAN ORR, M.B., Ch.B.Edin.,
Recruiting Surgeon,
Central London Recruiting Dépôt, Whitehall.

London, W.C., Feb. 1st.

THE SOLDIER'S HEART AND THE STRAINED HEART.

SIR,—In the genuine functional collapse of a physically overstrained heart the sudden onset may be regarded as a climax in a gradual exhaustion of the myocardium, and primarily as a myocardial failure. In the analogous functional heart-stroke induced in a nerve-worn subject by some overwhelming shock we may safely assume some degree of underlying myocardial inadequacy, but his disabling attack is primarily a nervous heart collapse. The soldier's heart might be regarded as a combination of both types. But in each sufferer the individual myocardial quality and the nerve quality are varying personal characteristics. That personal factor is the main difficulty in any attempted generalization as to differential diagnosis, prognosis, and treatment. There is great encouragement in Sir J. Mackenzie's favourable estimate of myocardial recuperativeness. But we cannot underrate Dr. Morison's misgivings as to the prospect of a complete restoration of the integrity of the nerve function. Neither should we underrate Dr. J. S. Manson's reminder as to the etiological importance of excessive smoking. I therefore regard total abstinence from tobacco as a first indication, though it need not be permanently enforced in those possessing a natural or acquired tobacco immunity.

It is comparatively easy to restore myocardial tone by rest and graduated exercise. The cure of the neurasthenia of the heart struck is much more difficult. Suggestion is probably its most powerful remedy. We are thoroughly justified by our uncertainty as to the nature and extent of the trouble in the individual patient in suggesting to him that there is no heart damage, but only the transient and curable effects of over-fatigue, and, perhaps, of too much tobacco.

As regards the significance in otherwise healthy subjects of occasional irregularity in cardiac action, and of occasional murmurs, I am in practical agreement with Sir J. Mackenzie. For some hearts an irregular gait seems to be the easier one under stress of external pressures. For others an imperfect systolic valvular closure may be the best compensation for any undue intraventricular pressure; but most frequently, perhaps, a harmless murmur, reputed mitral, is nothing more than a disguised reduplication, an overlapping of the normal but asynchronous first sounds. Mere loudness is not a reliable measure for the size of the leakage, if any should exist. As in whistling, the intensity of the sound varies directly with the degree of the pressure, and inversely with the diameter of the lumen.—I am, etc.,

London, W., Jan. 30th. WILLIAM EWART.

DYSTOCIA DUE TO CONSTRICTED OS.

SIR,—Amongst the memoranda in the JOURNAL of January 29th, Drs. Owen-Jones and Morris record an interesting case of a nulliparous woman who, they were informed, had previously suffered from procidentia uteri, which had been treated by ventrifixation, and had completely recurred. She then became pregnant for the first time, and, when she went into labour, delivery was delayed because the os externum did not open out.

But nulliparous women do not have procidentia uteri (the final or complete stage of prolapsus uteri). When they habitually wear the cervix outside the body, as the writers aptly put it, the condition is quite a different variety o genital prolapse. This begins with a developmental error, elongation of the cervix. The overgrowth of the cervix occurs at puberty, and often proceeds until the uterus is

5 in. in length. The os approaches and finally appears at the vaginal outlet; and, as it descends, the cervix pushes down the vaginal roof, and inverts it more or less from above downwards. The os externum in these cases is sometimes extremely small—the "pin-hole" os of the older writers. During labour the elongated cervix generally simply splits on one side or on both. Thus, from being a nullipara with a long cervix and a pin-hole os the patient becomes a parous woman with a long split cervix.

The diagnosis of this condition from prolapsus is easy, because in "long cervix," or "inversion of the vagina from above downwards," there is no cystocele. On telling the patient to bear down, the cervix emerges first from the vaginal outlet. In prolapsus uteri, when the patient bears down, the anterior vaginal wall appears first, being everted from below upwards, the bladder within it. Thus in prolapsus the cystocele appears first at the vulva and the cervix comes after it.

The treatment of the condition is to amputate the cervix so as to leave the uterus about 3 in. in length, and to repair the perineum if it has been stretched and thinned by prolonged pressure of the cervix and inverted vaginal walls. Ventrifixation is naturally quite ineffective for the treatment of "long cervix." Nor is it a good operation for cases of prolapsus. All varieties of genital prolapse are best treated by the vaginal and not by the abdominal route.—I am, etc.,

Manchester, Jan. 29th. W. E. FOTHERGILL.

ENGLISH PUBLIC HEALTH ADMINISTRATION.

SIR,—My attention has just been called to the extremely encouraging review of my book under the above title in your issue of January 1st. I am indeed proud to have obtained such eulogy, but I must enter a plea of "not guilty" to the charge of making such a "reactionary suggestion" as that involved in urging that the public health administration should be divided between two departments, that of the M.O.H. and that of the sanitary inspector. On p. 107 I wrote:

> The M.O.H. (in the larger districts) may be expected to be a man of considerable attainments and experience, and as such will realize the desirability of centralizing control over a staff having graduated responsibility in its separate departments. It is the method followed in all great business and industrial concerns; a responsible chief having subordinate departmental heads with wide discretion and ample powers.

and on the following page (108) I distinctly proclaim the M.O.H. to be "the natural and logical head of the service," and go on to opine that

> It may, therefore, be expected, despite contrary tendencies, that sooner or later ordinary business principles will prevail, and that the public health departments will be organized in a series of sub-departments each with a chief responsible to and controlled by the M.O.H.

In the last paragraph of the chapter I outline a classification of sub-departments "with chiefs under the control of the medical officer of health," which I put forward as "suggestive rather than dogmatic."

I think this is ample evidence in support of my plea, and I trust that you will allow me the space to clear myself of the charge of making what I agree with your reviewer would be a "reactionary suggestion."—I am, etc.,

Upton Park, E., Jan. 29th. B. G. BANNINGTON.

The Services.

EXCHANGES DESIRED.

CAPTAIN, R.A.M.C.(S.R.), Radiographer Casualty Clearing Station, is desirous of effecting an exchange to the base or to England. Address, No. 550, BRITISH MEDICAL JOURNAL Office, 429, Strand, W.C.

Lieutenant, at present medical officer to a regiment in France desires to exchange with medical officer of a hospital, ambulance train or barge. Address No. 549, BRITISH MEDICAL JOURNAL, 429, Strand, W.C.

THE American Association for Labour Legislation has initiated legislation to provide for the establishment in Massachusetts of a system of compulsory health insurance for all industrial workers earning 100 dollars (£20) a month or less. The insurance would cover any sickness, accident, or death not provided for under the head of workmen's compensation, and further benefits in the way of medical, surgical, and nursing attendance, medicines and surgical appliances, besides cash, maternity, and funeral allotments.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following degrees have been conferred:

B.M., B.CH.—M. R. Lawrence, C. Dean, A. Traill, L. Gameson, A. G. East, G. T. Gimlette, L. M. P. Whitcombe.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

A SPECIAL introductory medical course in physics, chemistry, and biology for students desirous of beginning their medical studies will be held at University College, commencing on March 1st. Intending students should communicate forthwith with the Provost, University College, London (Gower Street, W.C.).

UNIVERSITY OF BRISTOL.

THE following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B.—*Part I:* Hilda M. Brown, S. Datta, Marjorie S. Neville, T. H. A. Penniger.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—*Part I, Chemistry; Part II, Physics:* V. H. Barker, E. R. Boland, †H. L. Bowen, E. Brazao, H. Dryerre, B. M. Gerson, W. Hardman, *S. Hazeldene, †J. W. Hulme, E. R. Jagger, †A. A. Knapman, †Margaret O. Meek, H. S. N. Menko, G. G. Newman, *Madeline P. Parker, *G. K. Reeves, *B. R. Reynolds, H. N. Schapiro, †G. F. Smith, W. Walsham, Octavia M. Wilberforce. *Part III, Elementary Biology:* V. H. Barker, J. B. Barnett, E. R. Boland, H. Brookman, H. S. Chadwick, S. H. Coplans, C. W. Empey, H. M. Gerson, Kate Glyn-Jones, J. B. Gregor, A. Hamid, E. Hardy, E. R. Jagger, M. A. R. Khalifa, A. A. Knapman, Margaret O. Meek, H. S. N. Menko, H. S. Morris, J. L. C. O'Flynn, E. A. I. Phillips, Betsey Porter, E. L. J. Reason, G. K. Reeves, I. Resnikoff, H. N. Schapiro. *Part IV, Practical Pharmacy:* R. Aspinall-Stivala, H. W. Barnes, E. G. P. Bousfield, C. V. Braimbridge, J. C. Collins, W. H. Dye, C. A. L. Evans, A. A. Fitch, F. J. Harvey, B. Haskins, J. F. Haynes, K. Masson, G. E. Mullins, V. A. Newton, B. Sahai, R. Sinha, V. R. Smith, G. C. Williams.

* Passed in Part I only. † Passed in Part II only.

SECOND COLLEGE.—*Anatomy and Physiology:* R. W. C. Ball, G. A. E. Barnes, A. Blackstock, E. J. S. Bonnett, M. V. Boucaud, C. R. Cade, J. D. M. Cardell, T. Carlyle, N. Cheus, W. B. Christopherson, W. A. Clements, C. E. Cobb, A. I. Cox, H. C. Cox, C. K. Cullen, T. Davies, C. J. C. de Silva, F. B. Dutton, T. G. Evans, D. C. Farquharson, S. Finkelstein, J. B. Flamer-Caldera, C. A. R. Goonewardene, A. G. Hewer, C. L. Hewer, R. Hilliard, M. Jackson, J. W. Jones, S. Kadinsky, A. W. Lewis, S. S. Liebermann, A. D. Lokanathan, H. O. Long, A. V. Lopes, E. K. Macdonald, T. C. McKenzie, G. Millar, D. Mintzman, W. D. Nicol, E. Nissim, A. A. Osman, W. G. Owen, E. J. Papenfus, W. A. W. Parkes, A. L. S. Payne, E. A. Pearson, R. J. Perkins, J. Peter, E. F. Rabey, E. D. T. Roberts, J. S. Rogers, S. N. Senitzky, A. G. M. Severn, B. B. Sharp, B. L. Slater, S. R. Tattersall, C. J. Thomas, N. B. Thomas, R. A. Walker, A. D. Wall, A. E. Ward, P. E. Williams, S. A. Withers, S. Wolff, S. C. Woodhouse, V. D. Wyborn, C. Young.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on January 27th, Dr. Frederick Taylor, the President, being in the chair.

Admission of Members.

The following gentlemen, having passed the requisite examination, were admitted Members of the College: Aldo Castellani, M.D.Florence, and John Lloyd Davies, M.D.Lond., L.R.C.P.

Licences.

Licences to practise physic were granted to eighty gentlemen who had passed the necessary examinations.

Diplomas in Public Health.

Conjointly with the Royal College of Surgeons of England, Diplomas in Public Health were granted to the following candidates: Ratonjee Dinshaw Dalal, L.M. and S.Bombay; Philip Hamill, M.D.Cantab.; William John Hart, M.B.Oxon.; Horace Richard Wilson, M.D., B.S.Lond.

Duties of Medical Practitioners in Cases of Criminal Abortion.

A supplementary report was received and adopted from the Censors Board upon the duties of medical practitioners in relation to cases of criminal abortion (see p. 206).

Lectures.

The President announced that he had appointed Sir Thomas Barlow, Bt., K.C.V.O., to be the Harveian Orator for 1916, and Dr. Hector W. G. Mackenzie to be the Bradshaw Lecturer. Also that the Council had nominated Dr. W. J. Howarth Medical Officer to the City of London, to the Milroy Lectureship for 1917. After some further formal business the President dissolved the comitia.

Other Business.

On the recommendation of the Committee of Management, Sir Roger Manwood's Grammar School, Sandwich, and

Wellington College were recognized for instruction in chemistry and physics, and the Technical College, Swansea, in biology also. The committee also recommended that as the principle of recognizing the matriculation examination of a university without Latin had been adopted by the Royal Colleges in the case of the University of London in 1902, like recognition should be extended to the matriculation examinations of the universities of Manchester, Liverpool, Leeds, Sheffield, and Birmingham. Drs. F. J. Wethered, J. Calvert, J. Galloway, and C. Ogle were elected councillors, and Sir Francis Champneys re-elected the representative of the College on the Central Midwives Board. A resolution was adopted directing a letter of condolence to be addressed to Mrs. George Oliver on the death of her husband, who in 1904 founded and generously endowed the Oliver-Sharpey lecture.

Obituary.

JOHN WYLLIE, M.D., F.R.C.P.E., LL.D.EDIN.,

EMERITUS PROFESSOR OF MEDICINE AND CLINICAL MEDICINE IN THE UNIVERSITY OF EDINBURGH.

By the death of John Wyllie, Emeritus Professor of Medicine and Clinical Medicine in the University of Edinburgh, which took place at his residence, 44, Charlotte Square, Edinburgh, early on the morning of January 25th, another notable figure has been removed from academic circles in the Scottish metropolis. In the Seventies of the past century there flourished a club known in Edinburgh as the "Round Table," a body remarkable for the high destiny of nearly all its members; the survivors of the nineteen or twenty members of these days now number only four or five, and they mourn the loss they have sustained in John Wyllie's decease. Edinburgh University drew largely upon the Round Table for its Professoriate, as the names of Sir Thomas Fraser, Crum Brown, William Rutherford, John Chiene, Alexander Dickson, and John Wyllie prove; and the extramural school had reason to be proud of many of the others, including Drs. Joseph Bell, Argyll Robertson, Angus Macdonald, Claud Muirhead, Charles E. Underhill, John Duncan, and Blair Cunnynghame. Wyllie played his part nobly both in the extramural school and in the university, and did not fall behind any of his companions of the Table Round in the honour he brought to Alma Mater.

Born in Midlothian between Ratho and Gogar in 1844, sprung from a line of farmers, spending his early years at Bolton in East Lothian, educated at Edinburgh University in the early Sixties, and increasing his medical knowledge at Paris under Trousseau in 1866, Wyllie settled in Edinburgh in 1868. He had already made his mark with a gold medal for his M.D. thesis, with a double residentship (surgical and medical in the Edinburgh Royal Infirmary), with the senior presidentship of the Royal Medical Society (that sure index of the esteem and admiration of contemporaries in Edinburgh), and with two years as house-physician to the General Hospital, Birmingham; he had further fitted himself for the understanding of the view-point of the country practitioner by acting as a locumtenent once at least for Dr. Anderson of Selkirk. He was elected to the Fellowship of the Royal College of Physicians in 1870, and from that year he continued to teach until his retirement from the chair of medicine in the close of 1914. At first his subject was pathology (1870–78), then medicine (1878–82), then clinical medicine in the extramural wards of the Royal Infirmary (during his fifteen years' tenure of office there, 1882–97), then fevers at the Colinton City Hospital (1897–99), then clinical medicine in the university wards (in place of Professor Fraser, absent in India on the Plague Commission) in 1898–99; and, finally, on the death of Professor Sir Thomas Grainger Stewart, practice of physic in the university for fifteen years (1900–14).

But there was much more packed into these years than teaching, although it is perhaps as a teacher—a clear, concise, fully equipped, and stimulating teacher—that Professor Wyllie will be best remembered; and it was a fortunate thing that through his appointment as professor in the university he had again the wards of the Royal Infirmary thrown open to him for clinical teaching also. Yet there were important duties performed by Professor Wyllie outside of the hours devoted to teaching. Thus, for two years (1875–77) he acted as pathologist to the Royal Infirmary, and was succeeded in that office by the late Professor D. J. Hamilton. For some six years he was a physician to the New Town Dispensary. For ten years (1878–88) he was honorary secretary to the Royal College of Physicians, and he discharged the duties of examiner in clinical medicine and in medicine for the university for a considerable number of years. Then there was the literary side of his achievement. Of the direction which this was to take an early indication was found in the subject he chose for his graduation thesis—namely, the physiology of the larynx—and he was never unfaithful to his first love. It is not surprising, therefore, to find him supplementing his winter series of lectures on practice of medicine by a summer course of instruction in laryngology and allied practical matters. Then, as time went on, he accumulated a vast amount of material bearing on the subject of the voice and its disorders and anomalies; and, finally, he began in 1891 to publish a long series of papers on the disorders of speech, a series which under that name appeared as a separate volume in 1894. These articles ran through three volumes of the *Edinburgh Medical Journal*, one being printed in almost every monthly part, and up to the very last one Dr. Wyllie retained the keen interest of his readers. It has sometimes been said that he was a man of one book; and whilst in a sense this is true (for his other contributions to medical literature had not the high note of distinction which his papers on the disorders of speech possessed), yet it must be added that it was a very great book, and left unsaid very little that was worth saying on the subject of the voice.

Professor Wyllie was emphatically a kindly man—kindly to his colleagues, to his students, to his patients, and to the younger doctors who used to consult him so often. The thoroughness he always exhibited with patients will be remembered; the notebook, the detailed questioning as to symptoms, the painstaking physical examination, the reasoned diagnosis and the sane prognosis, and the suggestive and rich therapeusis, were all of them incidents and features of consultations which were never without real and lasting benefit. The kindliness was mixed with a trace of shyness and reserve, but when once this was broken down, as was always possible, by a well-chosen reference to his favourite study in medicine or to photography (his absorbing hobby) or to fishing (his loved recreation), no one spoke more brightly and attractively. He was perhaps at his best conversationally when he was led to describe his rambles through little known parts of Europe with his camera and his fishing-rod. Yet it was not given to all who knew him to know him intimately, and to his shyness must in all probability be ascribed the degree of surprise which some of the profession felt when his election to the chair of medicine in the university was announced. Professor Wyllie never married.

The funeral, from Charlotte Square, Edinburgh, to Bolton in East Lothian (where Wyllie spent his childhood), took place on January 28th, and was largely attended by representatives of the University, of the Royal Infirmary, of the Royal Colleges of Physicians and Surgeons, and by many personal friends.

Sir JAMES AFFLECK, an old friend, writes: The death of Professor Wyllie means to many, and especially to those of his friends who have gone through professional life with him, a great cutting off. Dr. Wyllie's was a life devoted throughout with singleness of purpose to the cultivation of the science and art of medicine, with the view of making his acquirements available to those brought under his influence. For it was largely upon his work as a teacher that Dr. Wyllie's reputation rested. Gifted with the power of lucid exposition, happy expression, and apt illustration, his teaching, alike in the lecture room and the hospital wards, was of the kind to impress in an especial manner junior students, and to lay a sound foundation upon which their subsequent knowledge might be built. A large part of his time and strength was devoted to clinical teaching in the wards. An earnest student and worker himself, he demanded a high standard of diligent effort from his pupils, and slackness or irregularity in attendance would not be tolerated. As an examiner he was eminently fair and kindly, yet none knew better than he how to detect the man who had "ground up" for the occasion, and to deal with him accordingly. Living through a period which embraced the views and methods

of what might be termed the older and the newer medicine, he was able to appreciate and to utilize the good in both. It was a matter of regret among his friends that Dr. Wyllie did not write more, since few were better qualified than he to have enriched the literature of medicine; but he had an almost morbid shrinking from anything like display. His masterly work on the *Disorders of Speech* proved his high capacity as a thinker and writer, and will remain a worthy memorial of his powers. But it was not alone to the field of medicine that Dr. Wyllie's mental energies were restricted. He was truly one who "seeketh and intermeddleth with all wisdom." An omnivorous reader in history and in general literature, there were at the same time few branches of science that had not an interest for him. Big-brained and big-hearted, Dr. Wyllie had a wide outlook and a large human sympathy. His bright smile and genial and manly bearing were but the expression of qualities which won the affection of all who knew him. Those of the inner circle of his intimates and colleagues who sorrow most of all that they shall see his face no more will ever retain a sweet memory of his many virtues, and will rejoice and be thankful for the privilege of having been numbered among the friends of so singularly gifted and estimable a personality as John Wyllie.

Professor HUNTER STEWART writes: It was with sorrowfulness—not sadness—that the many friends of Professor John Wyllie paid the last tribute of respect to his memory on Friday last—sorrow, deep and poignant, that the influence of a spirit so lofty, so unselfish, so helpful to others had been withdrawn, and that they should see his face no more; but not sadness when they thought of the long life so worthily lived. Indeed, to his medical brethren who knew him well there was a feeling of honest pride that here was a man who had nobly continued the best traditions of the profession. John Wyllie's character and mental outlook was devoid of angularities; it rather seemed a rounded whole, developed symmetrically from within. Firm of purpose, he tested all new opinions by his robust common sense, and readily assimilated what his trained judgement approved. In social intercourse, perhaps specially at his own home, one saw him in other lights, and the sweetness of "Mary Morison" and the gentle flow of "Sweet Afton" were never sweeter or gentler than when sung by him. How delightful were the quiet evenings at his home when he talked on general literature which he knew so well! Nature in all its moods appealed to him, and keen fisher as he was, he has been known to stop for an hour on a beautiful stream, quite forgetful of the trout, "listening to the birds." As we laid his body to rest in the old churchyard of Bolton where his kindred sleep, within hearing of the murmur of the stream he loved so well, the sun broke from a wintry cloud, as if confirming the promise, "At evening time there shall be light."

Professor G. LOVELL GULLAND writes: One feels that in Professor Wyllie one has lost one of those personalities who cannot be replaced. He was a man of strong character and great individual force, with a definite conviction of his duty and mission, and a clear conception of the way in which he should perform them. His teaching was of prime importance in his life, and he took great pains with it, keeping in view the necessity of holding the balance between the presentation of recent thought and discovery, and the insistence on the unchanging principles which underlie the study and treatment of disease. He will never be surpassed as a teacher of junior students because of his power of giving a broad view, and at the same time insisting on the unvarying study of detail. As a physician he was sound, of ripe judgement, careful, and clearsighted, while his kindliness of thought and manner endeared him to patients and doctors. His old students all over the world will feel themselves the poorer for his loss, and his friends in Scotland will miss his help, his wisdom, and his thoughtfulness for others.

Dr. H. G. LANGWILL (Leith) writes: As a pupil in a very special sense of the late John Wyllie, and one who will remain a lifelong debtor to him, I should like to pay a small tribute of affectionate regard and esteem to my late teacher for his work in the treatment of stammering. It was in the early Eighties, on leaving school, where my stammer had become steadily worse (doubtless as a result of the competitive viva voce conjugation of Greek verbs with their reduplications!) that I was brought to the notice of Wyllie, who was at that time working at the subject of stammering. The kindness, interest, and patience that he uniformly bestowed, not only on myself, but (as I saw later when a student in his wards) on any stammerer, made a deep and lasting impression. Stammering was then—and, alas! is yet—so little considered to be within the sphere of medicine that any one afflicted with it (and only those who have gone through it know in how wide a sense it is an affliction) could not fail to feel most deeply grateful to such a master in medicine, who lent his powerful aid to extricate the victim from a veritable "slough of despond." Looking back, the most striking feature, perhaps, was his extraordinary patience in trying to get his pupil to *understand* and *carry into practice* the lessons of his physiological alphabet. Our speaking is such an automatic performance that very few have any idea how difficult it is to get a pupil to *think* about the method of producing his words. Wyllie's patience was inexhaustible, and the characteristic little laugh with which he would greet the oft-repeated failures not only put the nervous patient at his ease (which is half the battle in treatment), but gave him the feeling that here was a teacher whom no stupidity would anger. His satisfaction, too—one might almost say personal delight—in devising effective illustrative sentences as exercises upon the various consonants was another characteristic trait, and one can almost still hear the rippling laugh which followed some favourite exercise, like "Tip-toe Tommy turned a Turk for tuppence."

SIR FRANCIS LOVELL, C.M.G.

WE regret to announce the death of Sir Francis Henry Lovell, Dean of the London School of Tropical Medicine, which occurred at his house in Hampstead on January 28th. He was the eldest son of Henry Hill Lovell, D.C.L., of Apsley in Bedfordshire, and was born in 1844. He received his professional education at St. Bartholomew's Hospital, and obtained the diploma of M.R.C.S. in 1865 and that of L.S.A. in 1867. In 1873 he was appointed Colonial surgeon at Sierra Leone, and in 1878 was transferred to Mauritius where he became chief medical officer, president of the General Board of Health and a member of the Legislative Council. In 1893 he was appointed surgeon-general of Trinidad and Tobago and was a member of the Executive and Legislative Councils. He retired from the Colonial Service in 1901.

On his return to England he showed a keen interest in the work of the London School of Tropical Medicine, where his long official experience made him very useful. In 1901, when the number of students began to exceed the accommodation available for them, and it became evident that funds were urgently needed for the development of the school, Sir Francis Lovell offered to go on a mission to tropical centres for the purpose of enlisting the practical sympathy of public bodies and residents in the work. In pursuit of this object he visited Bombay, Calcutta, Ceylon, Singapore, the Straits Settlements, the Federated Malay States, Penang, Hong Kong, Japan, and Canada. Everywhere he received a sympathetic welcome from the administrative authorities, the leading members of the medical profession, and the principal merchants, native as well as British. He brought back with him a sum of nearly £10,000 and many promises of support in the form of subscriptions and further donations. He also obtained for the school the right in perpetuity of appointment to the office of Director of the Research Institute, then recently established by the Government of the Federated Malay States at Kuala Lumpur. In recognition of his services he was elected dean of the school. In 1909 he went on a second mission, again going to Ceylon and also to the West Indies. He visited Barbados, the Windward Islands, the Leeward Islands, Jamaica, Trinidad, and British Guiana. Once more he succeeded in making a large addition to the funds of the school whose interests he had so much at heart.

In 1893 he was made a C.M.G., and his name was included in the list of new knights in the New Year's honours of 1900. This was, we believe, the first instance in which a knighthood has been bestowed on a member of

the Colonial Service during his tenure of office. The event was regarded as unique in the medical history of Trinidad, and therefore as being a fit subject for special congratulation. An illuminated address, signed by representatives of the Medical Board of Trinidad and of the Trinidad and Tobago Branch of the British Medical Association, was presented to Sir Francis Lovell. It stated that the signatories recognized that the dignity had been worthily conferred as a reward of long and honourable service.

He was a representative of the Trinidad Branch from 1903 to 1905 and a member of the Colonial Committee.

In 1903 he became a Fellow of the Royal College of Surgeons of England. He was also an honorary LL.D.

Sir Francis Lovell, though modest and retiring, was a man of considerable force of character, and his influence on the work of the School of Tropical Medicine, though quietly and unobtrusively exerted, was none the less active and beneficial. His courtesy and kindliness of manner made him everywhere popular, and, while endearing him to those who knew him well, contributed greatly to the success of his missions.

SIR GEORGE AUGUSTUS PILKINGTON, who died at Southport on January 28th in his 68th year, was the son of Mr. R. G. Coombe, surgeon, of Burnham, Essex. He received his medical education at Guy's Hospital, and took the diplomas of M.R.C.S. and L.S.A. in 1870. He was the first house-surgeon of the Southport Infirmary, being appointed in 1871, and retaining the position until 1875, when he engaged in private practice in the town. In that year he married the daughter of Mr. Pilkington of Blackburn, and at his father-in-law's request took that name. He continued to practise in Southport until 1885, in which year he was elected to represent the newly constituted Southport division in Parliament. He was defeated by the present Lord Curzon in 1886 and was re-elected in 1899, but not in the following year; his parliamentary career was thus short. He was twice mayor of Southport, and had been high sheriff of Lancashire. He received the honour of knighthood in 1893.

SIR HUGH OWEN, G.C.B., who was Secretary of the Local Government Board from 1882 to 1898, died at his residence at Highgate on January 28th at the age of 82. He joined the staff of the Board in 1876, so that he served through a period of transition in public health and Poor Law administration, on the course of which he exerted no little influence.

THE profession in Nottingham has sustained a serious loss by the sudden death of Dr. C. H. BROMHALL, at the early age of 36. While opening an abscess, on January 7th, he accidentally pricked his finger. This was followed by cellulitis of the arm and septicaemia. He died of heart failure on January 16th. He was educated at the Royal Lancaster Grammar School, and studied medicine at the Manchester University, where he took the degrees of M.B., Ch.B. in 1903. After serving as resident medical officer at the Birmingham Poor Law Infirmary, he held the posts of assistant house-surgeon at the Birmingham General Hospital, resident officer at the Birmingham Dispensary, and finally resident surgical officer at the Birmingham General Hospital for six months' temporary duty. In 1907 he was appointed resident medical officer to the Nottingham General Dispensary (Hyson Green Branch). Two and a half years later he commenced practice in the City of Nottingham. Being a man of great energy and considerable natural ability, he rapidly acquired a large practice. Living in the heart of a great industrial district, he had a very long list of insurance patients. He was also one of the district medical officers under the Nottingham Union. He was a shrewd and capable practitioner, and, although very hard-worked, did not lose touch with the more scientific aspects of progressive medicine. He was of military age and willing to do his duty, for he is known to have said that if selected for service by the local War Emergency Committee he should go.

BY the death of Mr. JOHN HUMPHRY, M.R.C.S., which took place in London on January 27th, at the advanced age of 91, the medical profession loses one of its oldest members. Mr. Humphry received his medical training at University College Hospital, and qualified in 1849. Thereafter he spent two years in the London Fever Hospital under Sir William Jenner, and was for five years medical officer at the Birmingham Union Infirmary. In 1855, during the Crimean war, he acted as civil surgeon, and was attached to the British Army Hospital at Renkioi, Asiatic Turkey, organized by the late Dr. Parkes, at whose special request he was sent out. In 1856 he was appointed medical superintendent of the Bucks County Asylum, Stone, Aylesbury, which had then been opened about four years, and here he spent the remainder of his long professional career, retiring about eight years ago. Throughout his connexion with the Bucks Asylum Mr. Humphry retained the confidence of successive visiting committees, and to mark his completion of fifty years as medical superintendent, in 1906, he received from the Visiting Committee, County Council, and residents in Buckinghamshire an illuminated address and service of plate. Mr. Humphry's administration of the Bucks Asylum was characterized by kindly consideration for the patients and staff, by all of whom he was beloved. At the same time he was always keenly interested in every advance in the treatment and care of the insane, and in his own institution carried out a policy marked by liberal ideas, and encouraged every effort to improve the nursing and treatment of the patients. He was a member of the Medico-Psychological Association for over fifty years, and also of the British Medical Association.

DR. SAMUEL ROBERT DUDLEY, who died recently at the age of 54, received his medical education at St. Bartholomew's Hospital and became L.S.A. in 1901 and L.M.S.S.A. six years later. He was gazetted a temporary lieutenant R.A.M.C. on November 23rd, 1915, and went to Canterbury on December 1st. He subsequently became ill and returned home to Ilford on December 18th and died on December 21st.

LIEUTENANT WALTER HALLI BURTON MACDONALD, R.A.M.C., died of appendicitis in Craigleith Hospital, Edinburgh, on January 22nd, aged 57. He was educated in the medical school of the Royal College of Surgeons, Edinburgh, where he took medals in chemistry and in medical jurisprudence, and also honours in anatomy, surgery, and midwifery; he obtained the Scottish triple qualification in 1889. He was appointed principal medical officer to the Imperial British East Africa Company in 1889, and when that chartered company's territories became a protectorate in 1895 continued to hold the same post. During his service in East Africa he gained the African war medal and clasp for Witu in 1890, a clasp for Mwele in 1895, the East and Central Africa Queen's medal with clasp for Uganda in 1897–98, the Africa general service King's medal with clasp for Uganda in 1900, and the Imperial British East Africa service medal in 1902. He received a letter of thanks from the Admiralty for service in the Mazumi rebellion in 1895, was present at the bombardment of Zanzibar, and received a sword of honour with the thanks of H.H. Sultan Hamond in 1896, and the order of the Brilliant Star of Zanzibar in 1895. He was in medical charge of the Anglo-German Boundary Delimitation Commission of 1898, and was a corresponding member of the Royal Scottish Geographical Society. On the outbreak of the war he took a temporary commission in the R.A.M.C., was for some time stationed at Redford, and then, till his death, medical officer in charge of the troops of the Forth defences.

LIEUTENANT-COLONEL NICHOLAS LEADER, R.A.M.C.(ret.), died at Brentwood, Essex, on January 22nd, aged 63. He was born on April 15th, 1852, took the diplomas of L.R.C.P. and L.R.C.S. at Edinburgh in 1874, and that of F.R.C.S.Edin. in 1887. He entered the Royal Army Medical Corps as surgeon on February 3rd, 1878, becoming surgeon-major on February 3rd, 1890, and lieutenant-colonel on February 3rd, 1896. He retired on November 23rd, 1898, and joined the Reserve of Officers; he rejoined in the present war, and served until his health failed. He had seen much war service: Egypt, 1882, medal and Khedive's bronze star; Soudan, 1885, reconnaissance to Hasheen, actions at Hasheen and Tofrek, attack on convoy

on March 26th, and destruction of Tamai, two clasps; Chitral, 1895, with the relief force, medal with clasp; and the Nile expedition of 1898, when he was mentioned in dispatches, *London Gazette*, December 9th, 1898, and received both the British and the Khedive's medals.

DR. JAMES CLARKE WHITE, one of the most distinguished physicians of Boston, who died on January 6th, was born at Belfast, Maine, in 1833. He was educated at Harvard. After graduating M.D. in 1856 he studied dermatology at Vienna, and on his return to America acquired a great reputation as a dermatologist. From 1863 to 1866 he was editor of the *Boston Medical and Surgical Journal*, to which he continued to contribute till within a few weeks of his death. He was a man of considerable literary gifts and of the highest integrity.

MRS. GRANT, who with her husband, the Rev. A. C. Grant, went down in the *Persia*, was a daughter of Ex-Lord Provost Maitland of Aberdeen. As Miss Christian Davidson Maitland she graduated B.Sc. at Aberdeen in 1908, afterwards proceeding to Edinburgh, where she took the degrees of M.B., Ch.B. in 1911. After serving for a time on the staff of the Aberdeen Hospital for Sick Children, she went to India in 1912 as a medical missionary of the United Free Church, and worked in Rajputana, where she rendered valuable service. There she met Mr. Grant, a missionary, to whom she was married in Aberdeen last November. The young couple were returning to their sphere of duty in India when they met their tragic fate.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Meslier, formerly a representative of the Seine department in the Chamber of Deputies, aged 47; Dr. A. Millard, physician to the Beaujon Hospital, and for many years one of the leading clinical teachers in Paris, aged 85; and Dr. Thomas Miller, lecturer on anatomy and diseases of children in Howard University, Washington, aged 58.

Public Health AND POOR LAW MEDICAL SERVICES.

SCOTTISH POOR LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual meeting of the Scottish Poor Law Medical Officers' Association was held at St. Enoch's Hotel, Glasgow, on January 28th. The report for 1915 showed that during that year the number of vacant appointments was greater than usual owing to the fact that so many medical officers had accepted commissions in the Royal Army Medical Corps. Many of those vacancies had not been filled up owing to the scarcity of medical men eligible for civilian practice. It was pointed out that if many more medical officers were withdrawn from country districts a very serious question would arise as to how the medical necessities of the people were to be met. During the year serious friction took place between one parish council and its medical officer; ultimately the matter was settled by the resignation of the medical officer. In no case did the secretary require to warn applicants, as each one of the vacancies was quite legitimate. The Insurance Act appeared generally to have been of considerable benefit to the medical officers in outlying districts, particularly in the Highlands and Islands. The regulations of the Medical Service Board (Highlands and Islands), under which the medical officers would in future have to work, were issued in August last. A considerable amount of irritation was caused amongst some of the medical officers by certain of the regulations, which were considered to be too onerous, requiring a great deal of book-keeping, etc. The Board had tried to meet any reasonable objections, and it was hoped that the working of the regulations would not be so troublesome as some medical officers feared. The opinion was expressed that the Act must result in great benefit, not only to the general public, but also to the medical officers, in that portion of Scotland to which it applied. The death of Dr. Gilbert Campbell, who presided over the association for many years, was announced with deep regret. The financial statement presented by the treasurer, Dr. F. Stewart Campbell, 19, Westercraigs, Glasgow, showed a balance in hand. It was decided that this should be put into an Exchequer bond. The report was adopted. Dr. S. Prince Clark, Glasgow, was elected president.

Medical News.

PROFESSOR SHERRINGTON has been elected a foreign member of the Imperial Academy of Sciences, Petrograd.

AT the meeting of the Liverpool Institution on January 27th a resolution was adopted congratulating Captain Noel G. Chavasse, R.A.M.C.(T.), 10th (Scottish) Battalion, King's Liverpool Regiment, on having received the Military Cross.

ON January 8th Surgeon-General William C. Gorgas was presented with the gold medal of the Geographical Society of Chicago. After the presentation he delivered an address on sanitation in its relation to geography.

ALDERMAN W. E. ST.L. FINNY, M.D., M.Ch., J.P., of Kingston-upon-Thames, has been called to the Bar at the Inner Temple.

THE many friends and old pupils of Sir Thomas Fraser will have seen with regret the announcement of the death of his son, Mr. H. C. Fraser, B.Sc., who was acting as a civil engineer at the Rosyth naval base. Sir Thomas Fraser lost another son in the navy earlier in the war.

SOME idea of the decrease in the production of medical books caused by the war may be gathered from the annual report of the library committee of the New York Academy of Medicine issued on January 1st. It is there stated that whereas 704 French and German publications were received during 1913, the number in 1915 was only 435.

ACCORDING to a telegram from Berne in the *Morning Post*, an appeal, signed by 246 German and Austrian scientists, has been made to the public not to cease to subscribe to scientific periodicals. Such periodicals, the memorialists state, are indispensable to scientific progress. Medical periodicals from Germany and Austria appear to have ceased to reach this country.

THE museum of the Royal College of Surgeons of England has been closed since June last, the motive being the desire to safeguard the collection from destruction during air raids. All spirit preparations and some of the more valuable of the others are now stowed in the basement, but those who desire to study any particular specimen will be permitted to do so. The conservator, Dr. Keith, is still in attendance, and anatomical and other scientific work is carried on in the workrooms of the college.

THE National Food Reform Association (178, St. Stephen's House, Westminster) held 450 demonstration-lectures and meetings for practical instructions in housekeeping during 1915. It is now arranging for about twenty demonstrations a week, and the experience of last year leads to the confident anticipation that they will be well attended by women of all classes—wage-earners, mistresses of small households, and social workers—who are anxious for lessons in economy with increased efficiency. An appeal for funds to carry on the work, both by way of demonstrations and leaflets, is signed by, among others, Sir Lauder Brunton, Dr. Robert Hutchison, and Professor Sims Woodhead.

AT the monthly meeting of the Medical Sickness and Accident Society on January 21st it was reported that the sickness claims for December were up to the expectation, though for the whole year they were below, notwithstanding the large sum paid to members invalided home from active service. The proposals for increased sickness benefit from existing members continued to show good returns. The society still accepts officers of the R.A.M.C. for limited amounts in sickness benefit and life assurance without extra premium. It was resolved to form an investment reserve fund to meet the depreciation in stock values. Full particulars and forms of application can be obtained from the secretary, Medical Sickness and Accident Society, 300, High Holborn, London, W.C.

DR. SUZUKI, Fleet Surgeon in the Imperial Japanese Navy, after careful anatomical and microscopical researches, states (*Surgery, Gynaecology, and Obstetrics*, December, 1915) that the oxyuris may be harboured in the lumen and also in the mucosa and submucosa of the appendix without causing any symptoms or producing any noteworthy anatomical changes, but contends at the same time that there is a genuine appendicitis oxyurica. It is developed when the parasites have penetrated the wall of the appendix in large numbers, leaving a breach of tissue offering a portal of entry to the infecting agent. He met with one such case among 103 appendices removed by operation. In three other cases a non-inflammatory yet painful morbid condition of the appendix, accompanied by traumatic destruction of the tissue and evidence of haemorrhage, were observed.

Letters, Notes, and Answers.

THE telegraphic addresses of the BRITISH MEDICAL ASSOCIATION and JOURNAL are: (1) EDITOR of the BRITISH MEDICAL JOURNAL, *Aitiology, Westrand, London;* telephone, 2631, Gerrard. (2) FINANCIAL SECRETARY AND BUSINESS MANAGER (advertisements, etc.), *Articulate, Westrand, London;* telephone, 2630, Gerrard. (3) MEDICAL SECRETARY, *Medisecra, Westrand, London;* telephone, 2634, Gerrard. The address of the Irish office of the British Medical Association is 16, South Frederick Street, Dublin.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PETROL DUTY.

G. R. P. has been informed that the local authorities have no instructions as to allowing a rebate in respect of the *additional* duty imposed by the Finance (No. 2) Act, 1915.

*** Section 10 (3) of the Act provides in clear terms that the old rebate shall be extended to the additional duty, and on due proof that the motor spirit used by "G. R. P." has been subjected to the full—that is, the present—rate of duty, his claim to a full rebate appears to be indisputable.

INCOME TAX.

PARTNERSHIP TAX inquires as to the effect of a dissolution of partnership on September 30th last.

*** Apart from any complication as to allowances by way of "abatement" or for life assurance, etc., the outgoing partner should pay one-quarter of the tax assessed for the year, and the remaining partner the balance, being one-half of the tax for the first half year and the tax for the second half year. The dissolution constitutes what the Income Tax Acts refer to as a "succession," and if the profits of the practice fall short for the second half year from any specific cause, such as the payment of an assistant or a diminution in the receipts, since or by reason of the succession, our correspondent will be entitled to an adjustment of the liability for the period from September 30th to April 5th.

INCOMPATIBILITY.

M., who has been in the habit of prescribing a mixture containing sodii salicyl. ʒij, potass. bicarb. ʒiij, tinct. ferri mur. ʒij, aq. chlorof. ʒviij, asks whether the ingredients are, as he is told, incompatible.

*** The ingredients of the prescription are chemically incompatible, the iron reacting with both the salicylate and the potassium bicarbonate, and being precipitated as a substance consisting chiefly of ferric hydroxide. It seems probable, however, that the mixture is not affected very much physiologically by the chemical incompatibility, since the iron would be redissolved in the hydrochloric acid of the stomach contents, and would have as much effect as if it were administered in a soluble form in the first place. A little of the bicarbonate, and possibly of the salicylate, would be lost, but not a very large proportion of the quantities given in the prescription.

LETTERS, NOTES, ETC.

TEMPERATURE NECESSARY FOR THE DESTRUCTION OF LICE AND THEIR EGGS.

DR. J. PARLANE KINLOCH (University of Aberdeen) writes: I have read with much interest Mr. Bacot's paper, "The Temperature Necessary for the Destruction of Lice and their Eggs," which appeared in the JOURNAL of January 29th.

There does not seem to me to be any substantial difference between his results and mine when full account is taken of the different conditions under which the different sets of experiments were made.

I hope to be able to send you, in the course of a few weeks, a further contribution on the subject of insecticides, and perhaps it may be well that I should reserve till then such explanations as I may wish to offer regarding the apparent difference between Mr. Bacot's results and mine.

FOREIGN BODY IN THE RECTUM.

C. P. G. WAKELEY, M.R.C.S.Eng., L.R.C.P.Lond. (House-Surgeon, King's College Hospital), writes: A man, aged 43, came into hospital with the story that he had placed an egg-cup in his rectum to cure constipation, and was unable to dislodge it; he had taken 2 oz. of castor oil the day before. The cup, concavity downward, could be felt on rectal examination tightly wedged between the tuberosities of the ischium. Part of the cup was broken, and the side walls of the rectum were slightly lacerated and bleeding, and there was a constant flow of liquid faeces. The egg-cup was acting as a ball-valve, and as soon as it was pushed up a little higher into the rectum faeces escaped. Under an anaesthetic the external sphincter was dilated with the finger, but it was found impossible to remove the egg-cup as the lower part of the rectum and anal canal could not be dilated enough; an incision was made posteriorly dividing the external sphincter, when, with a little manipulation, the egg-cup was removed. The wound was packed with iodoform gauze, and a morphine suppository (½ grain) was placed in the rectum. The bowels were confined for four days, when they were opened by a dose of castor oil. The wound healed well, and the patient was discharged seven days after operation. I have seen the patient since; the wound has healed perfectly, and he states that he has complete control over his motions.

PHYSICIAN VERSUS SURGEON.

DR. JOHN HADDON (Hawick) writes: Since I published my book proving that food is the chief cause of disease, I watch with interest the contents of the medical papers, hoping to see that the physician is awakening to recognize the need there is to study the physiological action of our common foods. The ignorance upon that subject seems to me, since my eyes were opened, unpardonable; and the medical students of Scotland, at an inter-university congress, having unanimously passed a resolution that their teachers should be asked to teach them dietetics, have left the responsibility upon the medical authorities. All that is required is to make dietetics a compulsory subject for every licence to practise medicine, and it is to be hoped that the General Medical Council, which is responsible for the character of the education of medical students, will so far gratify the expressed desire of the medical students in Scotland. If I am right in my contention that food is the chief cause of disease, it is only by the study of the physiological action of foods that the physician can save his patients from falling a prey to the knife of the surgeon and having many of his organs removed which, through neglect, have become a danger to life. In this connexion I was pleased to notice T. A. R. Aiyar's experience as related in the JOURNAL of December 25th, 1915. He tells us of nine typical cases of appendicitis occurring in the natives of India, who object to submit to the surgeon's knife; and of the nine only one died, and it was a child, in whose perforated appendix an orange pip was found *post mortem*. There may be cases which only the surgeon can save, but there can be no doubt that appendicitis is a diet-produced disease, and from my experiments and observations on foods I believe it will be found that vegetables, by distending the caecum, lead to what is called appendicitis, although many perfectly healthy appendices are being removed by our leading surgeons.

Another communication, on epilepsy, by Dr. Pereira, in the JOURNAL of January 1st deserves special attention, for epilepsy, like appendicitis, is a diet-produced disease. Dr. Pereira has noticed that epileptic attacks depend upon meteorological states of the atmosphere as secondary causes. Hippocrates paid more attention to meteorology in connexion with disease than we do, but there can be no doubt that all who are in a plethoric state and suffering from anasarca, which the profession cannot yet recognize, are in danger of dying *suddenly*, as it is called, through some indiscretion in diet, or a sudden change in the weather. That accounts for certain diseases, and even abortion, occurring in runs, and being looked upon as epidemic.

A DOMINIONS YEAR BOOK.

THE *British Dominions Year Book* for 1916, issued by the general insurance company of that name, contains a series of articles bearing on the war in its various aspects. Thus there are articles by Sir L. Chiozza Money on a business-like empire; on the navy, by Mr. Jane; on finance, by Mr. Crammond and Mr. Keegan; and on the motor vehicle by Mr. Massac Buist. The last named has a very large subject, but endeavours, with much success, to deal with the general principles involved. One or two statements he makes are worthy of reproduction. He says that in the course of a single afternoon a batch of motor lorries may take forward 125 tons of shell and a million rounds of small arms ammunition. Speaking of the commissariat department, he says that motor meat safes, motor filters, and motor field kitchens are among the special varieties of vehicles furnished. Of the motor ambulance services, he says that the British is out and away the best. The book has a number of coloured illustrations which will help the civilian to understand the various badges and ribbons used by the navy and army.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.